

**Draft
Air Individual Permit
Part 70 Reissuance
13700005-101**

Permittee: US Steel Corp - MinnTac
Facility name: US Steel Corp - MinnTac
8771 Park Ridge Dr
Mountain Iron, MN 55768-2075
St. Louis County

Expiration date: [Five years from issuance date]

* All Title I Conditions do not expire

Part 70 Reissuance: TBD

Permit characteristics: Federal; Part 70/ Major for NSR; Limits to Avoid NSR

The emission units, control equipment and emission stacks at the stationary source authorized in this permit reissuance are as described in the submittals listed in the Permit Applications Table.

This permit reissuance supersedes Air Emission Permit No. 13700005- 006 and authorizes the Permittee to operate and modify the stationary source at the address listed above unless otherwise noted in the permit. The Permittee must comply with all the conditions of the permit. Any changes or modifications to the stationary source must be performed in compliance with Minn. R. 7007.1150 to 7007.1500. Terms used in the permit are as defined in the state air pollution control rules unless the term is explicitly defined in the permit.

Unless otherwise indicated, all the Minnesota rules cited as the origin of the permit terms are incorporated into the SIP under 40 CFR § 52.1220 and as such are enforceable by U.S. Environmental Protection Agency (EPA) Administrator or citizens under the Clean Air Act.

Signature:

This document has been electronically signed.

for Steven S. Pak, P.E., Manager
Air Quality Permits Section
Industrial Division

for the Minnesota Pollution Control Agency

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1. Permit applications table

Title description	Application receipt date	Action number
Part 70 Reissuance	08/22/2007 with supplemental information received 06/02/2025, 11/21/2025, and 5/5/2026	13700005-101
Minor Amendment	03/12/2024	
Minor Amendment	11/03/2023	
Minor Amendment	03/27/2023	
Notif of Replace of Unit	10/24/2022	
Notif of Replace of Unit	03/31/2022	
Major Amendment	12/15/2021	
Minor Amendment	09/29/2021	
Major Amendment	06/18/2020	
Minor Amendment	04/23/2018	
Minor Amendment	11/20/2017	
Minor Amendment	11/21/2016	
Minor Amendment	11/10/2016	
Administrative Amendment	03/07/2014	
Major Amendment	10/15/2013	
Administrative Amendment	11/26/2012	
Major Amendment	08/01/2012	
Minor Amendment	04/30/2012	
Notif of Replace of Controls	04/25/2011	
Notif of Replace of Controls	03/10/2011	
Administrative Amendment	02/02/2011	
Notif of Replace of Controls	12/20/2010	
Administrative Amendment	05/21/2010	
Administrative Amendment	03/22/2010	
Administrative Amendment	01/26/2010	
Minor Amendment	06/06/2008	
Major Amendment	05/13/2008	
Administrative Amendment	05/02/2008	
Minor Amendment	04/10/2008	
Minor Amendment	12/20/2006	
Minor Amendment	11/29/2006	

2. Where to send submittals

Send submittals that are required to be submitted to the EPA regional office to:

Chief Air Enforcement
Air and Radiation Branch
EPA Region V
77 West Jackson Boulevard
Chicago, Illinois 60604

Each submittal must be postmarked or received by the date specified in the applicable Table. Those submittals required by Minn. R. 7007.0100 to 7007.1850 must be certified by a responsible official, defined in Minn. R. 7007.0100, subp. 21. Other submittals shall be certified as appropriate if certification is required by an applicable rule or permit condition.

Send submittals that are required by the Acid Rain Program to:

U.S. Environmental Protection Agency
Clean Air Markets Division
1200 Pennsylvania Avenue NW (6204M)
Washington, D.C. 20460

Send any application for a permit or permit amendment to:

Fiscal Services – 6th Floor
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155-4194

Also, where required by an applicable rule or permit condition, send to the Permit Document Coordinator notices of:

- a. Accumulated insignificant activities
- b. Installation of control equipment
- c. Replacement of an emissions unit, and
- d. Changes that contravene a permit term

Unless another person is identified in the applicable Table, send all other submittals to:

AQ Compliance Tracking Coordinator
Industrial Division
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155-4194

Or

Email a signed and scanned PDF copy to:
submitstacktest.pca@state.mn.us
(for submittals related to stack testing)
AQRoutineReport.PCA@state.mn.us
(for other compliance submittals)
(See complete email instructions in “Routine Air Report Instructions Letter” at
<https://www.pca.state.mn.us/sites/default/files/aq-f6-15.pdf>)

3. Facility description

The U.S. Steel Corp - MinnTac (Facility) is located at 8771 Park Ridge Dr, Mountain Iron, St. Louis County, Minnesota.

U.S. Steel owns and operates a taconite mine and pellet production plant, known as MinnTac, in Mountain Iron, Minnesota.

The pellet plant converts crude ore into taconite pellets to be used at iron and steel mills. The activities at the pellet production plant include primary, secondary and tertiary crushing of crude ore, ore handling, material receiving and handling, pelletizing, and pellet storage and loadout.

The pellet plant consists of two crushing lines that feed into five pelletizing lines, each with a rotary kiln. The pelletizing lines were constructed in three steps. Step I was constructed in 1967 and contains one pelletizing line, Line 3. Step II was constructed in 1972 and contains two lines, Line 4 and Line 5. Step III was constructed in 1978 and contains two lines, Line 6 and Line 7. There is one primary crushing line providing ore to the Step I and Step II pelletizing lines, and one primary crushing line providing ore to Step III pelletizing lines.

The primary pollutants from the pellet production plant include products of combustion from the kilns firing the pellets including nitrogen oxides (NO_x), sulfur dioxide (SO₂), carbon monoxide (CO), volatile organic compounds (VOCs), particulate matter (PM), particulate matter less than 10 micron in diameter (PM₁₀), particulate matter less than 2.5 micron in diameter (PM_{2.5}), and various hazardous air pollutants (HAPs). There are also PM, PM₁₀, and PM_{2.5} emissions from material handling operations at the plant. Mercury and other metallic HAPs are also emitted from the ore when pellets are fired in the rotary kilns.

U.S. Steel operates controls such as wet scrubbers and cartridge filters (fabric filters) to control emissions from point sources at the pellet plant.

The mine portion of the facility is an open pit mine that produces crude ore to feed the pellet plant. Ore is freed from the earth using explosives, loaded into trucks and driven to the two crushing lines. Activities at the mine include blasting, loading, and hauling of crude ore. The primary pollutants from the mine portion of the facility include PM, PM₁₀, and PM_{2.5}.

Non-ferrous leftover material from the ore fed to the pellet plant, known as tailings, are sent to a tailings basin. Wind erosion of the exposed tailings beach, along with construction of dikes and vehicle traffic are sources of PM, PM₁₀, and PM_{2.5} emissions.

U.S. Steel implements dust control measures at the mine, pellet plant, and tailings basin to reduce fugitive dust emissions. These measures include application of water and dust suppressant when weather permits. At the tailings basin, U.S. Steel applies cover material as weather permits.

This permit action is Part 70 Reissuance incorporating 4 major amendments, 11 minor amendments, 7 administrative amendments, 4 MPCA-initiated reopenings, 3 notifications of replacement of controls, and 2 notifications of replacement of unit. This permit authorizes the replacement of existing wet controls in the pellet plant with cartridge filters as applied for in the 2013 major amendment application. The Permittee has already completed all other construction associated with minor amendments and notifications. The applications incorporated are as follows:

Two 2006 minor amendments to establish parametric monitoring operating limits for control equipment subject to 40 CFR pt. 63, subp. RRRRR

A 2008 administrative amendment, under 7007.1400, subp. 1(C) to incorporate NSPS requirements for a fire pump engine.

A 2008 major amendment and two 2008 minor amendments to establish parametric operating limits for controls subject to 40 CFR pt. 63, subp. RRRRR based on initial performance tests.

A 2008 MPCA-initiated reopening under Minn. R. 7007.1600 to establish throughput limits on EQUI 350, the Line 3 cooler vent stack. The MPCA will not carry forward this limit in the reissued permit.

A 2010 administrative amendment, under Minn. R. 7007.1400, subp. 1(G), requested clarification that the NO_x limit for the five pelletizing lines would take effect after February 1, 2010.

A 2010 administrative amendment, under Minn. R. 7007.1400, subp. 1(G), requested clarification in the permit of biomass materials allowed in Lines 3-7 kilns.

A MPCA-initiated 2010 reopening, under Minn. R. 7007.1600 to establish water flow and pressure drop operating limits for controls CE009, CE016, CE071, TREA 48, TREA 65, TREA 69, and TREA 156 pursuant to 40 CFR 63.9590. U.S. Steel has been operating according to the limits set in the notice of compliance. CE009, CE016, and CE071 have since been replaced with dry controls.

A 2010 notification of replacement of controls, under Minn. R. 7011.1150 (C)(3), for the replacement of CE011 with cartridge filter TREA 210.

A MPCA-initiated 2011 reopening under Minn. R. 7007.1600 to establish water flow and pressure drop operating limits for TREA 126 pursuant to 40 CFR 63.9590

Two 2011 notifications of replacement of controls, under Minn. R. 7011.1150 (C)(3), for the replacement of baghouse CE095 with baghouse TREA 211.

A 2012 administrative amendment for a test extension.

A 2012 minor amendment to replace a tertiary crusher EU138, with a new tertiary crusher EQUI 673.

A 2013 major amendment for the replacement of wet scrubbers with dry cartridge filters. U.S. Steel has carried out numerous replacements requested in this application under a schedule of compliance agreement with the MPCA.

A 2014 administrative amendment, under Minn. R. 7011.1400, subp. 1(C), to incorporate a more frequent testing schedule for CO, VOC and fluorides at the five kiln waste gas stacks.

A 2016 minor amendment to replace two tertiary crushers, EU 136, and EU 137 with one new weir crusher. U.S. Steel has completed construction of the new weir crusher.

A 2016 minor amendment to replace a 500-kW emergency generator, EU215, with a new 500-kW emergency generator, EQUI 671. U.S. Steel has completed construction of the new generator.

A 2018 minor amendment to replace a rod mill with a higher capacity grinder and to add five conveyor drop points to the permit as emission units.

A 2020 major amendment to replace wet scrubber CE082 with a cartridge filter TREA 216. U.S. Steel has completed the replacement as authorized by a schedule of compliance agreement with the MPCA.

A 2021 minor amendment to install a new diesel emergency generator, EQUI 672. U.S. Steel has completed construction of the new generator. Two 2022 notification of replacement of unit notifications to replace damaged pellet conveyors with temporary conveyors and subsequently permanent replacement conveyors.

A 2023 minor amendment to install a new diesel emergency generator, EQUI 673. U.S. Steel has completed construction of the new generator.

A 2023 minor amendment to install venturi scrubbers above a pellet conveyor transfers EQUI 119 and EQUI 120 and route emissions to a new stack, STRU 271.

A 2024 MPCA-initiated reopening, under Minn. R. 7007.1600, to revise operating parameter limits for scrubbers TREA 37 and TREA 38, which control Lines 4 and 5.

A 2024 minor amendment to replace an emergency generator, EQUI 274, with a new emergency generator, EQUI 706. U.S. Steel has completed construction of the new generator.

4. Summary of subject items

SI ID: Description	Relationship type	Related SI ID: Description
TFAC 2: US Steel Corp - MinnTac		
ACTV 2: All IAs		
COMG 37: Regional Haze and Facility-wide NOx Limits	has members	EQUI 3, EQUI 146, EQUI 179, EQUI 279, EQUI 280
COMG 38: Line 6 and 7 Combined Limits	has members	EQUI 3, EQUI 179
COMG 39: Taconite MACT Existing Ore Crushing and Handling	has members	EQUI 5, EQUI 6, EQUI 7, EQUI 8, EQUI 9, EQUI 10, EQUI 11, EQUI 12, EQUI 13, EQUI 14, EQUI 15, EQUI 19, EQUI 20, EQUI 21, EQUI 22, EQUI 23, EQUI 24, EQUI 25, EQUI 26, EQUI 47, EQUI 48, EQUI 51, EQUI 52, EQUI 53, EQUI 54, EQUI 55, EQUI 56, EQUI 57, EQUI 58, EQUI 59, EQUI 60, EQUI 61, EQUI 62, EQUI 63, EQUI 64, EQUI 65, EQUI 66, EQUI 67, EQUI 68, EQUI 72, EQUI 77, EQUI 78, EQUI 136, EQUI 137, EQUI 138, EQUI 139, EQUI 140, EQUI 141, EQUI 142, EQUI 170, EQUI 171, EQUI 172, EQUI 173,

SI ID: Description	Relationship type	Related SI ID: Description
		EQUI 174, EQUI 206, EQUI 207, EQUI 208, EQUI 216, EQUI 217, EQUI 218, EQUI 219, EQUI 220, EQUI 221, EQUI 222, EQUI 223, EQUI 224, EQUI 225, EQUI 226, EQUI 227, EQUI 228, EQUI 229, EQUI 230, EQUI 231, EQUI 232, EQUI 233, EQUI 234, EQUI 235, EQUI 236, EQUI 237, EQUI 238, EQUI 239, EQUI 240, EQUI 241, EQUI 242, EQUI 243, EQUI 244, EQUI 245, EQUI 246, EQUI 247, EQUI 248, EQUI 249, EQUI 250, EQUI 251, EQUI 252, EQUI 253, EQUI 254, EQUI 281, EQUI 283, EQUI 284, EQUI 285, EQUI 286,

SI ID: Description	Relationship type	Related SI ID: Description
		EQUI 287, EQUI 288, EQUI 289, EQUI 290, EQUI 291, EQUI 292, EQUI 293, EQUI 297, EQUI 298, EQUI 299, EQUI 300, EQUI 301, EQUI 303, EQUI 304, EQUI 305, EQUI 309, EQUI 310, EQUI 313, EQUI 314, EQUI 318, EQUI 319, EQUI 320, EQUI 321, EQUI 322, EQUI 323, EQUI 324, EQUI 325, EQUI 326, EQUI 327, EQUI 328, EQUI 329, EQUI 330, EQUI 331, EQUI 332, EQUI 333, EQUI 335, EQUI 336, EQUI 337, EQUI 338, EQUI 339, EQUI 340, EQUI 341, EQUI 342, EQUI 343, EQUI 347, EQUI 374, EQUI 375, EQUI 377, EQUI 378, EQUI 379, EQUI 380,

SI ID: Description	Relationship type	Related SI ID: Description
		EQUI 381, EQUI 382, EQUI 383, EQUI 384, EQUI 385, EQUI 386, EQUI 387, EQUI 388, EQUI 389, EQUI 390, EQUI 392, EQUI 393, EQUI 394, EQUI 395
COMG 40: Taconite MACT Existing Finished Pellet Handling	has members	EQUI 42, EQUI 46, EQUI 79, EQUI 81, EQUI 82, EQUI 87, EQUI 122, EQUI 123, EQUI 147, EQUI 149, EQUI 150, EQUI 164, EQUI 270, EQUI 272, EQUI 273, EQUI 315, EQUI 351, EQUI 353, EQUI 354, EQUI 371, EQUI 372
COMG 41: Taconite MACT fugitive sources	has members	FUGI 1, FUGI 3, FUGI 4, FUGI 5, FUGI 6, FUGI 8, FUGI 9, FUGI 10, FUGI 11, FUGI 12, FUGI 14, FUGI 15, FUGI 16, FUGI 17, FUGI 18, FUGI 19, FUGI 20, FUGI 21, FUGI 22, FUGI 23, FUGI 24, FUGI 25, FUGI 26, FUGI 27, FUGI 28, FUGI 29
COMG 42: Taconite	has members	EQUI 47, EQUI

SI ID: Description	Relationship type	Related SI ID: Description
MACT Testing Group: Step I and II Coarse Crushers - Scrubbers		72
COMG 45: Taconite MACT Testing Group: Step I and II Conveyors Group 2 - Scrubber	has members	EQUI 6, EQUI 206, EQUI 207, EQUI 208, EQUI 325, EQUI 342, EQUI 374, EQUI 392
COMG 46: Taconite MACT Testing Group: Step I and II Conveyors Group 2 - Cartridge Filters	has members	EQUI 6, EQUI 7, EQUI 51, EQUI 206, EQUI 207, EQUI 208, EQUI 325, EQUI 342, EQUI 343, EQUI 374, EQUI 392
COMG 47: Taconite MACT Testing Group: Step I and II Conveyors Group 3 - Cartridge Filters	has members	EQUI 52, EQUI 53, EQUI 77, EQUI 78, EQUI 318, EQUI 319, EQUI 320, EQUI 330, EQUI 331, EQUI 332, EQUI 333, EQUI 377, EQUI 383, EQUI 384, EQUI 385
COMG 48: Taconite MACT Testing Group: Secondary Crushers L1-L5 - Cartridge Filters	has members	EQUI 283, EQUI 327, EQUI 328, EQUI 329, EQUI 382
COMG 49: Taconite MACT Testing Group: Secondary Crushers L6-L10 - Scrubbers	has members	EQUI 5, EQUI 339, EQUI 340, EQUI 341, EQUI 390
COMG 50: Taconite MACT Testing Group: Secondary Crushers L6-L10 - Cartridge Filters	has members	EQUI 5, EQUI 339, EQUI 340, EQUI 341, EQUI 390
COMG 51: Taconite MACT Testing Group: Tertiary Crushers L1-L6	has members	EQUI 335, EQUI 336, EQUI 337,

SI ID: Description	Relationship type	Related SI ID: Description
- Cartridge Filters		EQUI 338, EQUI 386, EQUI 387, EQUI 388, EQUI 389
COMG 52: Taconite MACT Testing Group: Tertiary Crushers L7- L12 - Cartridge Filters	has members	EQUI 55, EQUI 56, EQUI 57, EQUI 58, EQUI 59, EQUI 60, EQUI 66, EQUI 67
COMG 53: Taconite MACT Testing Group: Tertiary Crushers L13- L16 - Cartridge Filters	has members	EQUI 61, EQUI 62, EQUI 63, EQUI 64, EQUI 65, EQUI 68
COMG 54: Taconite MACT Testing Group: Step I and II Conveyors Group 4 - Cartridge Filters	has members	EQUI 313, EQUI 314, EQUI 326, EQUI 381, EQUI 393, EQUI 394
COMG 55: Taconite MACT Testing Group: Step I and II Storage Bins - Scrubbers	has members	EQUI 19, EQUI 20, EQUI 21, EQUI 22, EQUI 23, EQUI 24, EQUI 25, EQUI 26, EQUI 170, EQUI 171, EQUI 172, EQUI 216, EQUI 217, EQUI 218, EQUI 219, EQUI 220, EQUI 221, EQUI 222, EQUI 223, EQUI 224, EQUI 225, EQUI 226, EQUI 227, EQUI 228, EQUI 229, EQUI 230, EQUI 231, EQUI 232, EQUI 233, EQUI 234, EQUI 235, EQUI 236, EQUI 237,

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SI ID: Description	Relationship type	Related SI ID: Description
		EQUI 238, EQUI 239
COMG 56: Taconite MACT Testing Group: Step III Pan feeders - Scrubbers	has members	EQUI 281, EQUI 375
COMG 57: Taconite MACT Testing Group: Step III Pan feeders - Cartridge Filters	has members	EQUI 281, EQUI 375
COMG 58: Taconite MACT Testing Group: Step III Secondary Crushers L11-15 - Scrubbers	has members	EQUI 9, EQUI 285, EQUI 286
COMG 59: Taconite MACT Testing Group: Step III Secondary Crushers L11-15 - Cartridge Filters	has members	EQUI 9, EQUI 10, EQUI 285, EQUI 286, EQUI 287
COMG 60: Taconite MACT Testing Group: Step III Secondary Crushers L18-23 - Scrubbers	has members	EQUI 297, EQUI 298, EQUI 299, EQUI 300, EQUI 301
COMG 61: Taconite MACT Testing Group: Step III Secondary Crushers L18-22 - Cartridge Filters	has members	EQUI 297, EQUI 298, EQUI 299, EQUI 300, EQUI 301
COMG 62: Taconite MACT Testing Group: Step III Secondary Crushers L23-28 - Scrubbers	has members	EQUI 303, EQUI 304, EQUI 305, EQUI 673, EQUI 674, EQUI 675
COMG 63: Taconite MACT Testing Group: Step III Secondary Crushers L24-28 - Fabric Filters	has members	EQUI 303, EQUI 304, EQUI 305, EQUI 673, EQUI 674, EQUI 675
COMG 64: Taconite MACT Testing Group: Step III Conveyors Group 1 - Scrubbers	has members	EQUI 8, EQUI 11, EQUI 12, EQUI 173, EQUI 240, EQUI 241, EQUI 284, EQUI 288, EQUI 289,

SI ID: Description	Relationship type	Related SI ID: Description
		EQUI 290, EQUI 395
COMG 65: Taconite MACT Testing Group: Step III Conveyors - Cartridge Filters	has members	EQUI 8, EQUI 11, EQUI 12, EQUI 173, EQUI 240, EQUI 241, EQUI 284, EQUI 288, EQUI 289, EQUI 290, EQUI 395
COMG 66: Taconite MACT Testing Group: Step III Storage Bins Group 1 - Fabric Filters	has members	EQUI 136, EQUI 140, EQUI 141, EQUI 142, EQUI 174, EQUI 242, EQUI 243, EQUI 244, EQUI 245, EQUI 246, EQUI 251, EQUI 252, EQUI 253, EQUI 254
COMG 67: Taconite MACT Testing Group: Step III Conveyors Group 2 - Fabric Filters	has members	EQUI 309, EQUI 310, EQUI 321, EQUI 322, EQUI 323, EQUI 378, EQUI 379, EQUI 380
COMG 68: Taconite MACT Testing Group: Step III Storage Bins Group 2 - Scrubbers	has members	EQUI 13, EQUI 14, EQUI 15, EQUI 137, EQUI 138, EQUI 139, EQUI 247, EQUI 248, EQUI 249, EQUI 250, EQUI 291, EQUI 292, EQUI 293
COMG 69: Taconite MACT Testing Group: Step I/II Pellet Handling Conveyors - Scrubbers	has members	EQUI 46, EQUI 81, EQUI 82, EQUI 108, EQUI 149, EQUI 150,

SI ID: Description	Relationship type	Related SI ID: Description
		EQUI 270, EQUI 272, EQUI 273, EQUI 315, EQUI 351, EQUI 353, EQUI 354, EQUI 372
COMG 70: Taconite MACT Testing Group: Step I/II Grate Feeds - Scrubbers	has members	EQUI 36, EQUI 159, EQUI 347
COMG 71: Taconite MACT Testing Group: Step I/II Cooler Discharge - Scrubbers	has members	EQUI 42, EQUI 79, EQUI 147, EQUI 272, EQUI 371
COMG 72: Taconite MACT Testing Group: Step III Pellet Handling Conveyors - Scrubbers	has members	EQUI 87, EQUI 119, EQUI 120, EQUI 122, EQUI 123, EQUI 164
COMG 73: Line 3 CEMS	has members	EQUI 256, EQUI 257, EQUI 713
COMG 74: Line 4 CEMS	has members	EQUI 264, EQUI 265, EQUI 714
COMG 75: Line 5 CEMS	has members	EQUI 258, EQUI 259, EQUI 715
COMG 76: Line 6 CEMS	has members	EQUI 260, EQUI 261, EQUI 716
COMG 77: Line 7 CEMS	has members	EQUI 262, EQUI 263, EQUI 717
COMG 78: Taconite MACT Testing Group: Step III Grate Feeds - Scrubbers	has members	EQUI 96, EQUI 104
COMG 79: Line 6 and 7 Mercury Emission Inventory Testing	has members	EQUI 3, EQUI 179
COMG 80: Line 4 and 5 Mercury Emission Inventory Testing	has members	EQUI 279, EQUI 280
EQUI 3: L6 Rotary Kiln	is monitored by	EQUI 260: SO2 CEMS at Line 6 Waste Gas Stack (SV 144)

SI ID: Description	Relationship type	Related SI ID: Description
EQUI 3: L6 Rotary Kiln	is monitored by	EQUI 261: NOx CEMS at Line 6 Waste Gas Stack (SV 144)
EQUI 3: L6 Rotary Kiln	is monitored by	EQUI 716: L6 Air Flow Meter
EQUI 3: L6 Rotary Kiln	sends to	EQUI 718: Agglomerator Lines 3-7 DAS
EQUI 3: L6 Rotary Kiln	is monitored by	EQUI 724: Line 6 Kiln Exit Temp Continuous Monitor
EQUI 3: L6 Rotary Kiln	sends to	EQUI 726: Agglomerator Lines 3-7 Parameter DAS
EQUI 3: L6 Rotary Kiln	sends to	STRU 155: L6 Waste Gas Stack
EQUI 3: L6 Rotary Kiln	is controlled by	TREA 143: Line 6 Waste Gas Stack Scrubber
EQUI 5: Secondary Crusher L10	sends to	STRU 236: Secondary Crusher L10
EQUI 5: Secondary Crusher L10	is controlled by	TREA 52: Step I Secondary Crusher Line 10 Scrubber
EQUI 5: Secondary Crusher L10	is controlled by	TREA 242: Secondary Crusher L10 Cartridge Filter
EQUI 6: Conveyor Transfer 008 to 009	sends to	STRU 180: Conveyor Transfer 008- 009
EQUI 6: Conveyor Transfer 008 to 009	is controlled by	TREA 53: Step I Conveyor Transfer 008 to 009 Scrubber
EQUI 6: Conveyor Transfer 008 to 009	is controlled by	TREA 237: Conveyor Transfer 008- 009 Cartridge Filter
EQUI 7: Conveyor	sends to	STRU 180:

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Transfer 008 to 009		Conveyor Transfer 008-009
EQUI 7: Conveyor Transfer 008 to 009	is controlled by	TREA 53: Step I Conveyor Transfer 008 to 009 Scrubber
EQUI 8: Conveyor Transfer 008-009	sends to	STRU 181: Conveyor Transfer 008-009
EQUI 8: Conveyor Transfer 008-009	sends to	TREA 230: Conveyor Transfer 008-009 Cartridge Filter
EQUI 9: Secondary Crusher L11	sends to	STRU 239: Secondary Crusher L11
EQUI 9: Secondary Crusher L11	is controlled by	TREA 57: Step III Secondary Crusher Line 11 Scrubber
EQUI 9: Secondary Crusher L11	is controlled by	TREA 245: Secondary Crusher L11 Cartridge Filter
EQUI 10: Secondary Crusher L14	sends to	STRU 183: Secondary Crusher L14
EQUI 10: Secondary Crusher L14	is controlled by	TREA 248: Secondary Crusher L14 Cartridge Filter
EQUI 11: Conveyor Transfer 001-070 Bin	sends to	STRU 184: Conveyor Transfer 001-070 Bin
EQUI 11: Conveyor Transfer 001-070 Bin	is controlled by	TREA 62: Conveyor Transfer 001-070 Bin Scrubber
EQUI 11: Conveyor Transfer 001-070 Bin	is controlled by	TREA 265: Conveyor Transfer 001-070 Bin Cartridge Filter
EQUI 12: Conveyor	sends to	STRU 243:

SI ID: Description	Relationship type	Related SI ID: Description
Transfer 003-004		Conveyor Transfer 003-004
EQUI 12: Conveyor Transfer 003-004	is controlled by	TREA 64: Conveyor Transfer 003 to 004 Scrubber
EQUI 12: Conveyor Transfer 003-004	is controlled by	TREA 262: Conveyor Transfer 003-004 Cartridge Filter
EQUI 13: Tertiary Storage 006-080 Bin	sends to	STRU 185: Tertiary Storage 006-080 Bins
EQUI 13: Tertiary Storage 006-080 Bin	is controlled by	TREA 65: Step III Tertiary Storage 006-080 Bins Scrubber
EQUI 13: Tertiary Storage 006-080 Bin	is controlled by	TREA 269: Step III Tertiary Storage 006-080 Bins Cartridge Filter
EQUI 14: Tertiary Storage 006-080 Bin	sends to	STRU 185: Tertiary Storage 006-080 Bins
EQUI 14: Tertiary Storage 006-080 Bin	is controlled by	TREA 65: Step III Tertiary Storage 006-080 Bins Scrubber
EQUI 14: Tertiary Storage 006-080 Bin	is controlled by	TREA 269: Step III Tertiary Storage 006-080 Bins Cartridge Filter
EQUI 15: Tertiary Storage 006-080 Bin	sends to	STRU 185: Tertiary Storage 006-080 Bins
EQUI 15: Tertiary Storage 006-080 Bin	is controlled by	TREA 65: Step III Tertiary Storage 006-080 Bins Scrubber

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SI ID: Description	Relationship type	Related SI ID: Description
EQUI 15: Tertiary Storage 006-080 Bin	is controlled by	TREA 269: Step III Tertiary Storage 006-080 Bins Cartridge Filter
EQUI 19: Storage Bin L3,4	sends to	STRU 114: Storage Bin L3, 4
EQUI 19: Storage Bin L3,4	is controlled by	TREA 189: Storage Bins Lines 3,4 Scrubber
EQUI 20: Storage Bin L5,6	sends to	STRU 193: Storage Bin L5, 6
EQUI 20: Storage Bin L5,6	is controlled by	TREA 190: Storage Bins Lines 5,6 Scrubber
EQUI 21: Storage Bin L5,6	sends to	STRU 193: Storage Bin L5, 6
EQUI 21: Storage Bin L5,6	is controlled by	TREA 190: Storage Bins Lines 5,6 Scrubber
EQUI 22: Storage Bin L5,6	sends to	STRU 193: Storage Bin L5, 6
EQUI 22: Storage Bin L5,6	is controlled by	TREA 190: Storage Bins Lines 5,6 Scrubber
EQUI 23: Storage Bin L7,8	sends to	STRU 115: Storage Bin L7, 8
EQUI 23: Storage Bin L7,8	is controlled by	TREA 191: Storage Bins Lines 7,8 Scrubber
EQUI 24: Storage Bin L7,8	sends to	STRU 115: Storage Bin L7, 8
EQUI 24: Storage Bin L7,8	is controlled by	TREA 191: Storage Bins Lines 7,8 Scrubber
EQUI 25: Storage Bin L9,10	sends to	STRU 116: Storage Bin L9, 10

SI ID: Description	Relationship type	Related SI ID: Description
EQUI 25: Storage Bin L9,10	is controlled by	TREA 192: Storage Bins Lines 9,10 Scrubber
EQUI 26: Storage Bin L9,10	sends to	STRU 116: Storage Bin L9, 10
EQUI 26: Storage Bin L9,10	is controlled by	TREA 192: Storage Bins Lines 9,10 Scrubber
EQUI 27: L5 Bentonite Day Bins	is controlled by	TREA 110: Line 5 Bentonite Day Bin Baghouse
EQUI 28: L5 Bentonite Day Bins	is controlled by	TREA 110: Line 5 Bentonite Day Bin Baghouse
EQUI 29: L5 Bentonite Day Bins	is controlled by	TREA 110: Line 5 Bentonite Day Bin Baghouse
EQUI 30: L5 Bentonite Day Bins	is controlled by	TREA 110: Line 5 Bentonite Day Bin Baghouse
EQUI 31: L5 Bentonite Blending	is controlled by	TREA 111: Line 5 Bentonite Blending Baghouse
EQUI 32: L5 Bentonite Blending	is controlled by	TREA 111: Line 5 Bentonite Blending Baghouse
EQUI 33: L5 Bentonite Blending	is controlled by	TREA 111: Line 5 Bentonite Blending Baghouse
EQUI 34: L5 Bentonite Blending	is controlled by	TREA 111: Line 5 Bentonite Blending Baghouse
EQUI 35: L5 Bentonite Blending	is controlled by	TREA 111: Line 5 Bentonite Blending Baghouse
EQUI 36: L5 Grate Feed	sends to	STRU 221: L5 Grate Feed
EQUI 36: L5 Grate Feed	is controlled	TREA 112:

SI ID: Description	Relationship type	Related SI ID: Description
	by	Agglomerator II Line 5 Grate Feed Scrubber
EQUI 37: L5 Grate Discharge	sends to	STRU 226: L5 Grate Discharge
EQUI 37: L5 Grate Discharge	is controlled by	TREA 113: Agglomerator II Line 5 Grate Discharge Scrubber
EQUI 41: L5 Pellet Cooler Vent Stack	sends to	STRU 133: L5 Cooler Vent Stack
EQUI 42: L5 Cooler Discharge / Fines Conveyor	sends to	STRU 134: L5 Cooler Dump Zone
EQUI 42: L5 Cooler Discharge / Fines Conveyor	is controlled by	TREA 179: Line 5 Fines Conveyor Dynamic Wet Scrubber
EQUI 46: L4 Pellet Scrn Fine Belt	sends to	STRU 230: L4 Conveyor Transfer 041- 046 to 042 Belts
EQUI 46: L4 Pellet Scrn Fine Belt	is controlled by	TREA 108: 41, 46 Conveyor Transfer Scrubber
EQUI 47: Step I Coarse Crusher	sends to	STRU 152: Step I Coarse Crusher
EQUI 47: Step I Coarse Crusher	sends to	STRU 153: Step II Coarse Crusher
EQUI 47: Step I Coarse Crusher	is controlled by	TREA 115: Step I Coarse Crusher Baghouse
EQUI 47: Step I Coarse Crusher	is controlled by	TREA 116: Step II Coarse Crusher Baghouse
EQUI 48: Step III Coarse Crusher	sends to	STRU 154: Step III Coarse Crusher
EQUI 48: Step III Coarse Crusher	is controlled by	TREA 117: Step III Coarse

SI ID: Description	Relationship type	Related SI ID: Description
		Crusher Baghouse
EQUI 51: Conveyor Transfer 005-006	sends to	STRU 215: Conveyor Transfer 005- 006
EQUI 51: Conveyor Transfer 005-006	is controlled by	TREA 235: Conveyor Transfer 005- 006 Cartridge Filter
EQUI 52: Conveyor Transfer 005 Feed	sends to	STRU 219: Conveyor Transfer 005 Feed
EQUI 52: Conveyor Transfer 005 Feed	is controlled by	TREA 219: Step III Conveyor Transfer 005 Feed Baghouse
EQUI 53: Conveyor Transfer 005 Discharge	sends to	STRU 179: Conveyor Transfer 005 Discharge
EQUI 53: Conveyor Transfer 005 Discharge	is controlled by	TREA 220: Step III Conveyor Transfer 005 Discharge Baghouse
EQUI 54: Tertiary Storage Bin 1-4	sends to	STRU 105: Tertiary Crusher L7
EQUI 54: Tertiary Storage Bin 1-4	sends to	STRU 106: Tertiary Crusher L8
EQUI 54: Tertiary Storage Bin 1-4	is controlled by	TREA 200: Step I Tertiary Crusher Line 7 Baghouse
EQUI 54: Tertiary Storage Bin 1-4	is controlled by	TREA 201: Step I Tertiary Crusher Line 8 Baghouse
EQUI 55: Tertiary Crusher L7	sends to	STRU 105: Tertiary Crusher L7
EQUI 55: Tertiary Crusher L7	is controlled by	TREA 200: Step I Tertiary Crusher Line 7 Baghouse
EQUI 56: Tertiary	sends to	STRU 106:

SI ID: Description	Relationship type	Related SI ID: Description
Crusher L8		Tertiary Crusher L8
EQUI 56: Tertiary Crusher L8	is controlled by	TREA 201: Step I Tertiary Crusher Line 8 Baghouse
EQUI 57: Tertiary Crusher L9	sends to	STRU 107: Tertiary Crusher L9
EQUI 57: Tertiary Crusher L9	is controlled by	TREA 202: Step I Tertiary Crusher Line 9 Baghouse
EQUI 58: Tertiary Crusher L10	sends to	STRU 108: Tertiary Crusher L10
EQUI 58: Tertiary Crusher L10	is controlled by	TREA 203: Step I Tertiary Crusher Line 10 Baghouse
EQUI 59: Tertiary Crusher L11	sends to	STRU 109: Tertiary Crusher L11
EQUI 59: Tertiary Crusher L11	is controlled by	TREA 204: Step I Tertiary Crusher Line 11 Baghouse
EQUI 60: Tertiary Crusher L12	sends to	STRU 110: Tertiary Crusher L12
EQUI 60: Tertiary Crusher L12	is controlled by	TREA 205: Step I Tertiary Crusher Line 12 Baghouse
EQUI 61: Tertiary Crusher L13	sends to	STRU 111: Tertiary Crusher L13
EQUI 61: Tertiary Crusher L13	is controlled by	TREA 206: Step I Tertiary Crusher Line 13 Baghouse
EQUI 62: Tertiary Crusher L14	sends to	STRU 112: Tertiary Crusher L14
EQUI 62: Tertiary Crusher L14	is controlled by	TREA 207: Step I Tertiary Crusher Line 14 Baghouse
EQUI 63: Tertiary Crusher L15	sends to	STRU 231: Tertiary

SI ID: Description	Relationship type	Related SI ID: Description
		Crusher L15
EQUI 63: Tertiary Crusher L15	is controlled by	TREA 208: Step I Tertiary Crusher Line 15 Baghouse
EQUI 64: Tertiary Crusher L16	sends to	STRU 232: Tertiary Crusher L16
EQUI 64: Tertiary Crusher L16	is controlled by	TREA 209: Step I Tertiary Crusher Line 16 Baghouse
EQUI 65: Tertiary Crusher 080 Bins 5-8	sends to	STRU 231: Tertiary Crusher L15
EQUI 65: Tertiary Crusher 080 Bins 5-8	sends to	STRU 232: Tertiary Crusher L16
EQUI 65: Tertiary Crusher 080 Bins 5-8	is controlled by	TREA 208: Step I Tertiary Crusher Line 15 Baghouse
EQUI 65: Tertiary Crusher 080 Bins 5-8	is controlled by	TREA 209: Step I Tertiary Crusher Line 16 Baghouse
EQUI 66: Tertiary Crusher 080 Bins 5-8	sends to	STRU 107: Tertiary Crusher L9
EQUI 66: Tertiary Crusher 080 Bins 5-8	sends to	STRU 108: Tertiary Crusher L10
EQUI 66: Tertiary Crusher 080 Bins 5-8	is controlled by	TREA 202: Step I Tertiary Crusher Line 9 Baghouse
EQUI 66: Tertiary Crusher 080 Bins 5-8	is controlled by	TREA 203: Step I Tertiary Crusher Line 10 Baghouse
EQUI 67: Tertiary Crusher 080 Bins 5-8	sends to	STRU 109: Tertiary Crusher L11
EQUI 67: Tertiary Crusher 080 Bins 5-8	sends to	STRU 110: Tertiary Crusher L12
EQUI 67: Tertiary Crusher 080 Bins 5-8	is controlled by	TREA 204: Step I Tertiary Crusher Line 11 Baghouse

SI ID: Description	Relationship type	Related SI ID: Description
EQUI 67: Tertiary Crusher 080 Bins 5-8	is controlled by	TREA 205: Step I Tertiary Crusher Line 12 Baghouse
EQUI 68: Tertiary Crusher 080 Bins 5-8	sends to	STRU 111: Tertiary Crusher L13
EQUI 68: Tertiary Crusher 080 Bins 5-8	sends to	STRU 112: Tertiary Crusher L14
EQUI 68: Tertiary Crusher 080 Bins 5-8	is controlled by	TREA 206: Step I Tertiary Crusher Line 13 Baghouse
EQUI 68: Tertiary Crusher 080 Bins 5-8	is controlled by	TREA 207: Step I Tertiary Crusher Line 14 Baghouse
EQUI 72: Step II Coarse Crusher	sends to	STRU 153: Step II Coarse Crusher
EQUI 72: Step II Coarse Crusher	is controlled by	TREA 116: Step II Coarse Crusher Baghouse
EQUI 77: Conveyor Transfer 010-01	sends to	STRU 196: Conveyor Transfer 010-01
EQUI 77: Conveyor Transfer 010-01	is controlled by	TREA 212: Step I & II Conveyor transfer 010-01 Baghouse
EQUI 78: Conveyor Transfer 010-01	sends to	STRU 196: Conveyor Transfer 010-01
EQUI 78: Conveyor Transfer 010-01	is controlled by	TREA 212: Step I & II Conveyor transfer 010-01 Baghouse
EQUI 79: L4 Conveyor Transfer Feeder	sends to	STRU 209: L4 Conveyor Transfer Feeder
EQUI 79: L4 Conveyor Transfer Feeder	is controlled by	TREA 107: Agglomerator I Line 4 Cooler Discharge Scrubber

SI ID: Description	Relationship type	Related SI ID: Description
EQUI 81: L5 Conveyor Transfer 041/046 to 042 Belts	sends to	STRU 256: L5 Conveyor Transfer 041-046 to 042 Belts
EQUI 81: L5 Conveyor Transfer 041/046 to 042 Belts	is controlled by	TREA 133: 41, 46 Conveyor Transfer Scrubber
EQUI 82: L5 Conveyor Transfer 041/046 to 042 Belts	sends to	STRU 256: L5 Conveyor Transfer 041-046 to 042 Belts
EQUI 82: L5 Conveyor Transfer 041/046 to 042 Belts	is controlled by	TREA 133: 41, 46 Conveyor Transfer Scrubber
EQUI 87: S3 Conveyor Transfer	sends to	STRU 64: S3 Conveyor Transfer
EQUI 87: S3 Conveyor Transfer	is controlled by	TREA 134: Agglomerator III S3 Conveyor Transfer Scrubber
EQUI 88: S3 Bentonite Storage	sends to	STRU 139: S3 Bentonite Storage
EQUI 88: S3 Bentonite Storage	is controlled by	TREA 135: S3 Bentonite Storage Baghouse
EQUI 89: S3 Bentonite Storage	sends to	STRU 139: S3 Bentonite Storage
EQUI 89: S3 Bentonite Storage	is controlled by	TREA 135: S3 Bentonite Storage Baghouse
EQUI 90: L6 Bentonite Day Bin	is controlled by	TREA 136: Line 6 Bentonite Day Bin Baghouse
EQUI 91: L6 Bentonite Day Bin	is controlled by	TREA 136: Line 6 Bentonite Day Bin Baghouse
EQUI 92: L6 Bentonite Day Bin	is controlled by	TREA 136: Line 6 Bentonite

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SI ID: Description	Relationship type	Related SI ID: Description
		Day Bin Baghouse
EQUI 93: L6 Bentonite Blending	is controlled by	TREA 137: Line 6 Bentonite Blending Baghouse
EQUI 94: L6 Bentonite Blending	is controlled by	TREA 137: Line 6 Bentonite Blending Baghouse
EQUI 95: L6 Bentonite Blending	is controlled by	TREA 137: Line 6 Bentonite Blending Baghouse
EQUI 96: L6 Grate Feed	sends to	STRU 141: L6 Grate Feed
EQUI 96: L6 Grate Feed	is controlled by	TREA 138: Line 6 Grate Feed Scrubber
EQUI 97: L6 Grate Discharge	sends to	STRU 66: L6 Grate Discharge
EQUI 97: L6 Grate Discharge	is controlled by	TREA 139: Line 6 Grate Discharge Scrubber
EQUI 98: L7 Bentonite Day Bin	is controlled by	TREA 130: Line 7 Bentonite Day Bin Baghouse
EQUI 99: L7 Bentonite Day Bin	is controlled by	TREA 130: Line 7 Bentonite Day Bin Baghouse
EQUI 100: L7 Bentonite Day Bin	is controlled by	TREA 130: Line 7 Bentonite Day Bin Baghouse
EQUI 101: L7 Bentonite Blending	is controlled by	TREA 145: Line 7 Bentonite Blending Baghouse
EQUI 102: L7 Bentonite Blending	is controlled by	TREA 145: Line 7 Bentonite Blending Baghouse
EQUI 103: L7 Bentonite Blending	is controlled by	TREA 145: Line 7 Bentonite Blending Baghouse

SI ID: Description	Relationship type	Related SI ID: Description
EQUI 104: L7 Grate Feed	sends to	STRU 157: L7 Grate Feed
EQUI 104: L7 Grate Feed	is controlled by	TREA 146: Line 7 Grate Feed Scrubber
EQUI 108: Step I 043/044 Conveyor Transfer	sends to	STRU 71: Step I 043/044 Conv. Trans
EQUI 109: Step III 042 Conveyor Vent	sends to	STRU 72: Step III 042 Conveyor Vent
EQUI 110: Step III 043 Conveyor Vent	sends to	STRU 160: Step III 043 Conveyor Vent
EQUI 111: Step III 044 Conveyor Vent	sends to	STRU 73: Step III 044 Conveyor Vent
EQUI 112: Step III 044 Conveyor Vent	sends to	STRU 74: Step III 044 Conveyor Vent
EQUI 113: Step III 044 Conveyor Vent	sends to	STRU 75: Step III 044 Conveyor Vent
EQUI 114: Step III 044 Conveyor Vent	sends to	STRU 164: Step III 044 Conveyor Vent
EQUI 115: Step III 044 Conveyor Vent	sends to	STRU 165: Step III 044 Conveyor Vent
EQUI 116: Step III 044 Conveyor Vent	sends to	STRU 166: Step III 044 Conveyor Vent
EQUI 117: Step III 044 Conveyor Vent	sends to	STRU 167: Step III 044 Conveyor Vent
EQUI 118: Step III 044 Conveyor Vent	sends to	STRU 168: Step III 044 Conveyor Vent
EQUI 119: L6 Conveyor Transfer	sends to	STRU 271: Line 6 Steam Collection Exhaust Stack
EQUI 119: L6 Conveyor Transfer	is controlled by	TREA 225: L6 Steam Collection Venturi Scrubber
EQUI 120: L6 Conveyor Transfer	sends to	STRU 271: Line 6 Steam Collection

SI ID: Description	Relationship type	Related SI ID: Description
		Exhaust Stack
EQUI 120: L6 Conveyor Transfer	is controlled by	TREA 225: L6 Steam Collection Venturi Scrubber
EQUI 122: L7 Conveyor Transfer	sends to	STRU 70: L7 Conveyor Transfer
EQUI 122: L7 Conveyor Transfer	is controlled by	TREA 185: Agglomerator III Line 7 Conveyor Transfer Scrubber
EQUI 123: L7 Conveyor Transfer	sends to	STRU 70: L7 Conveyor Transfer
EQUI 123: L7 Conveyor Transfer	is controlled by	TREA 185: Agglomerator III Line 7 Conveyor Transfer Scrubber
EQUI 124: Step III 043/044 Conveyor Transfer	sends to	STRU 80: Step III 043/044 Conveyor Transfer
EQUI 125: Step III 043/044 Conveyor Transfer	sends to	STRU 81: Step III 043/044 Conveyor Transfer
EQUI 126: Step III 044-6/044-7 Conveyor Transfer	sends to	STRU 82: Step III 044-6/044-7 Conveyor Transfer
EQUI 127: Step III Pellet Loadout	sends to	STRU 83: Step III Pellet Loadout
EQUI 136: Storage Bin L13,14	sends to	STRU 198: Storage Bin L13, 14
EQUI 136: Storage Bin L13,14	is controlled by	TREA 218: Step III Storage Bin Lines 13, 14 Baghouse
EQUI 137: Storage Bin L15,16	sends to	STRU 118: Storage Bin L15, 16
EQUI 137: Storage Bin	is controlled	TREA 187: Step

SI ID: Description	Relationship type	Related SI ID: Description
L15,16	by	III Storage Bin Line 15, 16 Scrubber
EQUI 138: Storage Bin L15,16	sends to	STRU 118: Storage Bin L15, 16
EQUI 138: Storage Bin L15,16	is controlled by	TREA 187: Step III Storage Bin Line 15, 16 Scrubber
EQUI 139: Storage Bin L15,16	sends to	STRU 118: Storage Bin L15, 16
EQUI 139: Storage Bin L15,16	is controlled by	TREA 187: Step III Storage Bin Line 15, 16 Scrubber
EQUI 140: Storage Bin L17,18	sends to	STRU 199: Storage Bin L17, 18
EQUI 140: Storage Bin L17,18	is controlled by	TREA 216: Step III Storage Bin Lines 17, 18 Baghouse
EQUI 141: Storage Bin L17,18	sends to	STRU 199: Storage Bin L17, 18
EQUI 141: Storage Bin L17,18	is controlled by	TREA 216: Step III Storage Bin Lines 17, 18 Baghouse
EQUI 142: Storage Bin L17,18	sends to	STRU 199: Storage Bin L17, 18
EQUI 142: Storage Bin L17,18	is controlled by	TREA 216: Step III Storage Bin Lines 17, 18 Baghouse
EQUI 143: L3 Bentonite Blending	is controlled by	TREA 94: Line 3 Bentonite Blending Baghouse
EQUI 144: L3 Bentonite Blending	is controlled by	TREA 94: Line 3 Bentonite Blending Baghouse
EQUI 146: L3 Rotary Kiln	is monitored by	EQUI 256: NOx CEMS at Line 3 Waste Gas Stack

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SI ID: Description	Relationship type	Related SI ID: Description
EQUI 146: L3 Rotary Kiln	is monitored by	EQUI 257: SO2 CEMS at Line 3 Waste Gas Stack
EQUI 146: L3 Rotary Kiln	is monitored by	EQUI 713: L3 Air Flow Meter
EQUI 146: L3 Rotary Kiln	sends to	EQUI 718: Agglomerator Lines 3-7 DAS
EQUI 146: L3 Rotary Kiln	is monitored by	EQUI 721: Line 3 Kiln Exit Temp Continuous Monitor
EQUI 146: L3 Rotary Kiln	sends to	EQUI 726: Agglomerator Lines 3-7 Parameter DAS
EQUI 146: L3 Rotary Kiln	sends to	STRU 225: L3 Waste Gas Stack
EQUI 146: L3 Rotary Kiln	is controlled by	TREA 224: Line 3 Waste Gas Scrubber
EQUI 147: L3 Cooler Discharge	sends to	STRU 202: L3 Cooler Dump Zone
EQUI 147: L3 Cooler Discharge	is controlled by	TREA 174: Line 3 Cooler Discharge Dynamic Wet Scrubber
EQUI 148: L3 041/046 Conveyor Belt Vent	sends to	STRU 203: L3 041/046 Conveyor Belt Vent
EQUI 149: S1 Conveyor Transfer 042-043	sends to	STRU 123: S1 Conveyor Transfer 042-043
EQUI 149: S1 Conveyor Transfer 042-043	is controlled by	TREA 176: Step I Agglomerator 042 043 Conveyor Dynamic Wet Scrubber
EQUI 150: L3 Conveyor Transfer 041-042	sends to	STRU 204: L1 Conveyor Transfer 041-042

SI ID: Description	Relationship type	Related SI ID: Description
EQUI 150: L3 Conveyor Transfer 041-042	is controlled by	TREA 177: Line 3 Conveyor Transfer 041 042 Dynamic Wet Scrubber
EQUI 151: S1 Bentonite Storage Bin	is controlled by	TREA 97: S1 Bentonite Storage Baghouse
EQUI 152: L2,3 Bentonite Day Bin	is controlled by	TREA 98: Line 2, 3 Bentonite Day Bin Baghouse
EQUI 153: L2,3 Bentonite Day Bin	is controlled by	TREA 98: Line 2, 3 Bentonite Day Bin Baghouse
EQUI 154: S2 Bentonite Storage Bin	is controlled by	TREA 100: S2 Bentonite Storage Baghouse
EQUI 155: L4 Bentonite Day Bins	is controlled by	TREA 101: Line 4 Bentonite Day Bin Baghouse
EQUI 156: L4 Bentonite Day Bins	is controlled by	TREA 101: Line 4 Bentonite Day Bin Baghouse
EQUI 157: L4 Bentonite Blending	is controlled by	TREA 102: Line 4 Bentonite Blending Baghouse
EQUI 158: L4 Bentonite Blending	is controlled by	TREA 102: Line 4 Bentonite Blending Baghouse
EQUI 159: L4 Grate Feed	sends to	STRU 127: L4 Grate Feed
EQUI 159: L4 Grate Feed	is controlled by	TREA 103: Agglomerators II Line 4 Grate Feed Scrubber
EQUI 164: S3 Conveyor Transfer	sends to	STRU 64: S3 Conveyor Transfer
EQUI 164: S3 Conveyor Transfer	is controlled by	TREA 134: Agglomerator III S3 Conveyor Transfer

SI ID: Description	Relationship type	Related SI ID: Description
		Scrubber
EQUI 165: S3 Bentonite Storage	sends to	STRU 139: S3 Bentonite Storage
EQUI 165: S3 Bentonite Storage	is controlled by	TREA 135: S3 Bentonite Storage Baghouse
EQUI 166: L6 Bentonite Day Bin	is controlled by	TREA 136: Line 6 Bentonite Day Bin Baghouse
EQUI 167: L6 Bentonite Day Bin	is controlled by	TREA 136: Line 6 Bentonite Day Bin Baghouse
EQUI 168: L6 Bentonite Blending	is controlled by	TREA 137: Line 6 Bentonite Blending Baghouse
EQUI 169: L7 Bentonite Day Bin	is controlled by	TREA 130: Line 7 Bentonite Day Bin Baghouse
EQUI 170: Storage Bin L9,10	sends to	STRU 116: Storage Bin L9, 10
EQUI 170: Storage Bin L9,10	is controlled by	TREA 192: Storage Bins Lines 9,10 Scrubber
EQUI 171: Storage Bin L11,12	sends to	STRU 197: Storage Bin L11, 12
EQUI 171: Storage Bin L11,12	is controlled by	TREA 193: Storage Bins Lines 11,12 Scrubber
EQUI 172: Storage Bin L11,12	sends to	STRU 197: Storage Bin L11, 12
EQUI 172: Storage Bin L11,12	is controlled by	TREA 193: Storage Bins Lines 11,12 Scrubber
EQUI 173: Conveyor Transfer 009-020	sends to	STRU 117: Conveyor Transfer 009- 020
EQUI 173: Conveyor	is controlled	TREA 86: Step

SI ID: Description	Relationship type	Related SI ID: Description
Transfer 009-020	by	III Concentrator Tripper Transfer Scrubber
EQUI 173: Conveyor Transfer 009-020	is controlled by	TREA 261: Conveyor Transfer 009- 020 Cartridge Filter
EQUI 174: Storage Bin L13,14	sends to	STRU 198: Storage Bin L13, 14
EQUI 174: Storage Bin L13,14	is controlled by	TREA 218: Step III Storage Bin Lines 13, 14 Baghouse
EQUI 175: L7 Bentonite Day Bin	is controlled by	TREA 130: Line 7 Bentonite Day Bin Baghouse
EQUI 176: L7 Bentonite Blending	is controlled by	TREA 145: Line 7 Bentonite Blending Baghouse
EQUI 177: L7 Bentonite Blending	is controlled by	TREA 145: Line 7 Bentonite Blending Baghouse
EQUI 178: L7 Grate Discharge	sends to	STRU 227: L7 Grate Discharge
EQUI 178: L7 Grate Discharge	is controlled by	TREA 147: Line 7 Grate Discharge Scrubber
EQUI 179: L7 Rotary Kiln	is monitored by	EQUI 262: SO2 CEMS at Line 7 Waste Gas Stack (SV 151)
EQUI 179: L7 Rotary Kiln	is monitored by	EQUI 263: NOx CEMS at Line 7 Waste Gas Stack (SV 151)
EQUI 179: L7 Rotary Kiln	is monitored by	EQUI 717: L7 Air Flow Meter
EQUI 179: L7 Rotary Kiln	sends to	EQUI 718: Agglomerator Lines 3-7 DAS
EQUI 179: L7 Rotary	is monitored	EQUI 725: Line

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SI ID: Description	Relationship type	Related SI ID: Description
Kiln	by	7 Kiln Exit Temp Continuous Monitor
EQUI 179: L7 Rotary Kiln	sends to	EQUI 726: Agglomerator Lines 3-7 Parameter DAS
EQUI 179: L7 Rotary Kiln	sends to	STRU 69: L7 Waste Gas Stack
EQUI 179: L7 Rotary Kiln	is controlled by	TREA 151: Line 7 Waste Gas Stack Scrubber
EQUI 180: Step III 042 Conveyor Vent	sends to	STRU 159: Step III 042 Conveyor Vent
EQUI 181: Step III 043 Conveyor Vent	sends to	STRU 161: Step III 043 Conveyor Vent
EQUI 182: Step III 044 Conveyor Vent	sends to	STRU 162: Step III 044 Conveyor Vent
EQUI 183: Step III 044 Conveyor Vent	sends to	STRU 163: Step III 044 Conveyor Vent
EQUI 184: Step III 044 Conveyor Vent	sends to	STRU 76: Step III 044 Conveyor Vent
EQUI 185: Step III 044 Conveyor Vent	sends to	STRU 77: Step III 044 Conveyor Vent
EQUI 186: Step III 044 Conveyor Vent	sends to	STRU 78: Step III 044 Conveyor Vent
EQUI 187: Step III 044 Conveyor Vent	sends to	STRU 79: Step III 044 Conveyor Vent
EQUI 188: Step III 043/044 Conveyor Transfer	sends to	STRU 228: Step III 043/044 Conveyor Transfer
EQUI 189: Step III 043/044 Conveyor Transfer	sends to	STRU 169: Step III 043/044 Conveyor Transfer
EQUI 190: Step III 044-6/044-7 Conveyor Transfer	sends to	STRU 82: Step III 044-6/044-7 Conveyor Transfer

SI ID: Description	Relationship type	Related SI ID: Description
EQUI 191: Step III 044-6/044-7 Conveyor Transfer	sends to	STRU 170: Step III 044-6/044-7 Conveyor Transfer
EQUI 196: SI 104 MMBtu Heating Boiler	sends to	STRU 142: SI 104 MMBtu Boiler
EQUI 197: SI 104 MMBtu Heating Boiler	sends to	STRU 143: SI 104 MMBtu Boiler
EQUI 198: SII 125 MMBtu Heating Boiler	sends to	STRU 144: SII 125 MMBtu Boiler
EQUI 199: SIII 153 MMBtu Heating Boiler	sends to	STRU 145: SIII 153 MMBtu Boiler
EQUI 200: SIII 153 MMBtu Heating Boiler	sends to	STRU 146: SIII 153 MMBtu Boiler
EQUI 201: 24.6 MMBtu Boiler	sends to	STRU 149: 24.6 MMBtu Boiler
EQUI 202: 24.6 MMBtu Boiler	sends to	STRU 150: 24.6 MMBtu Boiler
EQUI 206: Step I Coarse Crusher Pan Feeders	sends to	STRU 210: Step I Coarse Crusher Pan Feeders
EQUI 206: Step I Coarse Crusher Pan Feeders	is controlled by	TREA 231: Step I Coarse Crusher Pan Feeder Cartridge Filter
EQUI 207: Step I Coarse Crusher Pan Feeders	sends to	STRU 210: Step I Coarse Crusher Pan Feeders
EQUI 207: Step I Coarse Crusher Pan Feeders	is controlled by	TREA 231: Step I Coarse Crusher Pan Feeder Cartridge Filter
EQUI 208: Step II Coarse Crusher Pan Feeders	sends to	STRU 195: Step II Coarse Crusher Pan Feeders
EQUI 208: Step II Coarse Crusher Pan Feeders	is controlled by	TREA 232: Step II Coarse Crusher Pan Feeder Cartridge Filter

SI ID: Description	Relationship type	Related SI ID: Description
EQUI 209: Storage Bin L1,2	sends to	STRU 192: Storage Bin L1, 2
EQUI 209: Storage Bin L1,2	is controlled by	TREA 188: Storage Bins Lines 1,2 Scrubber
EQUI 210: Storage Bin L1,2	sends to	STRU 192: Storage Bin L1, 2
EQUI 210: Storage Bin L1,2	is controlled by	TREA 188: Storage Bins Lines 1,2 Scrubber
EQUI 211: Storage Bin L1,2	sends to	STRU 192: Storage Bin L1, 2
EQUI 211: Storage Bin L1,2	is controlled by	TREA 188: Storage Bins Lines 1,2 Scrubber
EQUI 212: Storage Bin L1,2	sends to	STRU 192: Storage Bin L1, 2
EQUI 212: Storage Bin L1,2	is controlled by	TREA 188: Storage Bins Lines 1,2 Scrubber
EQUI 213: Storage Bin L1,2	sends to	STRU 192: Storage Bin L1, 2
EQUI 213: Storage Bin L1,2	is controlled by	TREA 188: Storage Bins Lines 1,2 Scrubber
EQUI 214: Storage Bin L1,2	sends to	STRU 192: Storage Bin L1, 2
EQUI 214: Storage Bin L1,2	is controlled by	TREA 188: Storage Bins Lines 1,2 Scrubber
EQUI 215: Storage Bin L1,2	sends to	STRU 192: Storage Bin L1, 2
EQUI 215: Storage Bin L1,2	is controlled by	TREA 188: Storage Bins Lines 1,2 Scrubber
EQUI 216: Storage Bin	sends to	STRU 114:

SI ID: Description	Relationship type	Related SI ID: Description
L3,4		Storage Bin L3, 4
EQUI 216: Storage Bin L3,4	is controlled by	TREA 189: Storage Bins Lines 3,4 Scrubber
EQUI 217: Storage Bin L3,4	sends to	STRU 114: Storage Bin L3, 4
EQUI 217: Storage Bin L3,4	is controlled by	TREA 189: Storage Bins Lines 3,4 Scrubber
EQUI 218: Storage Bin L3,4	sends to	STRU 114: Storage Bin L3, 4
EQUI 218: Storage Bin L3,4	is controlled by	TREA 189: Storage Bins Lines 3,4 Scrubber
EQUI 219: Storage Bin L3,4	sends to	STRU 114: Storage Bin L3, 4
EQUI 219: Storage Bin L3,4	is controlled by	TREA 189: Storage Bins Lines 3,4 Scrubber
EQUI 220: Storage Bin L3,4	sends to	STRU 114: Storage Bin L3, 4
EQUI 220: Storage Bin L3,4	is controlled by	TREA 189: Storage Bins Lines 3,4 Scrubber
EQUI 221: Storage Bin L3,4	sends to	STRU 114: Storage Bin L3, 4
EQUI 221: Storage Bin L3,4	is controlled by	TREA 189: Storage Bins Lines 3,4 Scrubber
EQUI 222: Storage Bin L5,6	sends to	STRU 193: Storage Bin L5, 6
EQUI 222: Storage Bin L5,6	is controlled by	TREA 190: Storage Bins Lines 5,6 Scrubber
EQUI 223: Storage Bin L5,6	sends to	STRU 193: Storage Bin L5,

SI ID: Description	Relationship type	Related SI ID: Description
		6
EQUI 223: Storage Bin L5,6	is controlled by	TREA 190: Storage Bins Lines 5,6 Scrubber
EQUI 224: Storage Bin L5,6	sends to	STRU 193: Storage Bin L5, 6
EQUI 224: Storage Bin L5,6	is controlled by	TREA 190: Storage Bins Lines 5,6 Scrubber
EQUI 225: Storage Bin L5,6	sends to	STRU 193: Storage Bin L5, 6
EQUI 225: Storage Bin L5,6	is controlled by	TREA 190: Storage Bins Lines 5,6 Scrubber
EQUI 226: Storage Bin L7,8	sends to	STRU 115: Storage Bin L7, 8
EQUI 226: Storage Bin L7,8	is controlled by	TREA 191: Storage Bins Lines 7,8 Scrubber
EQUI 227: Storage Bin L7,8	sends to	STRU 115: Storage Bin L7, 8
EQUI 227: Storage Bin L7,8	is controlled by	TREA 191: Storage Bins Lines 7,8 Scrubber
EQUI 228: Storage Bin L7,8	sends to	STRU 115: Storage Bin L7, 8
EQUI 228: Storage Bin L7,8	is controlled by	TREA 191: Storage Bins Lines 7,8 Scrubber
EQUI 229: Storage Bin L7,8	sends to	STRU 115: Storage Bin L7, 8
EQUI 229: Storage Bin L7,8	is controlled by	TREA 191: Storage Bins Lines 7,8 Scrubber
EQUI 230: Storage Bin L7,8	sends to	STRU 115: Storage Bin L7, 8

SI ID: Description	Relationship type	Related SI ID: Description
EQUI 230: Storage Bin L7,8	is controlled by	TREA 191: Storage Bins Lines 7,8 Scrubber
EQUI 231: Storage Bin L9,10	sends to	STRU 116: Storage Bin L9, 10
EQUI 231: Storage Bin L9,10	is controlled by	TREA 192: Storage Bins Lines 9,10 Scrubber
EQUI 232: Storage Bin L9,10	sends to	STRU 116: Storage Bin L9, 10
EQUI 232: Storage Bin L9,10	is controlled by	TREA 192: Storage Bins Lines 9,10 Scrubber
EQUI 233: Storage Bin L9,10	sends to	STRU 116: Storage Bin L9, 10
EQUI 233: Storage Bin L9,10	is controlled by	TREA 192: Storage Bins Lines 9,10 Scrubber
EQUI 234: Storage Bin L9,10	sends to	STRU 116: Storage Bin L9, 10
EQUI 234: Storage Bin L9,10	is controlled by	TREA 192: Storage Bins Lines 9,10 Scrubber
EQUI 235: Storage Bin L11,12	sends to	STRU 197: Storage Bin L11, 12
EQUI 235: Storage Bin L11,12	is controlled by	TREA 193: Storage Bins Lines 11,12 Scrubber
EQUI 236: Storage Bin L11,12	sends to	STRU 197: Storage Bin L11, 12
EQUI 236: Storage Bin L11,12	is controlled by	TREA 193: Storage Bins Lines 11,12 Scrubber
EQUI 237: Storage Bin L11,12	sends to	STRU 197: Storage Bin L11, 12
EQUI 237: Storage Bin	is controlled	TREA 193:

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SI ID: Description	Relationship type	Related SI ID: Description
L11,12	by	Storage Bins Lines 11,12 Scrubber
EQUI 238: Storage Bin L11,12	sends to	STRU 197: Storage Bin L11, 12
EQUI 238: Storage Bin L11,12	is controlled by	TREA 193: Storage Bins Lines 11,12 Scrubber
EQUI 239: Storage Bin L11,12	sends to	STRU 197: Storage Bin L11, 12
EQUI 239: Storage Bin L11,12	is controlled by	TREA 193: Storage Bins Lines 11,12 Scrubber
EQUI 240: Conveyor Transfer 009-020	sends to	STRU 117: Conveyor Transfer 009- 020
EQUI 240: Conveyor Transfer 009-020	is controlled by	TREA 86: Step III Concentrator Tripper Transfer Scrubber
EQUI 240: Conveyor Transfer 009-020	is controlled by	TREA 261: Conveyor Transfer 009- 020 Cartridge Filter
EQUI 241: Conveyor Transfer 009-020	sends to	STRU 117: Conveyor Transfer 009- 020
EQUI 241: Conveyor Transfer 009-020	is controlled by	TREA 86: Step III Concentrator Tripper Transfer Scrubber
EQUI 241: Conveyor Transfer 009-020	is controlled by	TREA 261: Conveyor Transfer 009- 020 Cartridge Filter
EQUI 242: Storage Bin L13,14	sends to	STRU 198: Storage Bin L13, 14

SI ID: Description	Relationship type	Related SI ID: Description
EQUI 242: Storage Bin L13,14	is controlled by	TREA 218: Step III Storage Bin Lines 13, 14 Baghouse
EQUI 243: Storage Bin L13,14	sends to	STRU 198: Storage Bin L13, 14
EQUI 243: Storage Bin L13,14	is controlled by	TREA 218: Step III Storage Bin Lines 13, 14 Baghouse
EQUI 244: Storage Bin L13,14	sends to	STRU 198: Storage Bin L13, 14
EQUI 244: Storage Bin L13,14	is controlled by	TREA 218: Step III Storage Bin Lines 13, 14 Baghouse
EQUI 245: Storage Bin L13,14	sends to	STRU 198: Storage Bin L13, 14
EQUI 245: Storage Bin L13,14	is controlled by	TREA 218: Step III Storage Bin Lines 13, 14 Baghouse
EQUI 246: Storage Bin L13,14	sends to	STRU 198: Storage Bin L13, 14
EQUI 246: Storage Bin L13,14	is controlled by	TREA 218: Step III Storage Bin Lines 13, 14 Baghouse
EQUI 247: Storage Bin L15,16	sends to	STRU 118: Storage Bin L15, 16
EQUI 247: Storage Bin L15,16	is controlled by	TREA 187: Step III Storage Bin Line 15, 16 Scrubber
EQUI 248: Storage Bin L15,16	sends to	STRU 118: Storage Bin L15, 16
EQUI 248: Storage Bin L15,16	is controlled by	TREA 187: Step III Storage Bin Line 15, 16 Scrubber
EQUI 249: Storage Bin L15,16	sends to	STRU 118: Storage Bin L15, 16
EQUI 249: Storage Bin	is controlled	TREA 187: Step

SI ID: Description	Relationship type	Related SI ID: Description
L15,16	by	III Storage Bin Line 15, 16 Scrubber
EQUI 250: Storage Bin L15,16	sends to	STRU 118: Storage Bin L15, 16
EQUI 250: Storage Bin L15,16	is controlled by	TREA 187: Step III Storage Bin Line 15, 16 Scrubber
EQUI 251: Storage Bin L17,18	sends to	STRU 199: Storage Bin L17, 18
EQUI 251: Storage Bin L17,18	is controlled by	TREA 216: Step III Storage Bin Lines 17, 18 Baghouse
EQUI 252: Storage Bin L17,18	sends to	STRU 199: Storage Bin L17, 18
EQUI 252: Storage Bin L17,18	is controlled by	TREA 216: Step III Storage Bin Lines 17, 18 Baghouse
EQUI 253: Storage Bin L17,18	sends to	STRU 199: Storage Bin L17, 18
EQUI 253: Storage Bin L17,18	is controlled by	TREA 216: Step III Storage Bin Lines 17, 18 Baghouse
EQUI 254: Storage Bin L17,18	sends to	STRU 199: Storage Bin L17, 18
EQUI 254: Storage Bin L17,18	is controlled by	TREA 216: Step III Storage Bin Lines 17, 18 Baghouse
EQUI 255: Heaters (25 units, Ltr 8/10/01)	sends to	STRU 252: Heaters (25 units, Ltr 8/10/01)
EQUI 256: NOx CEMS at Line 3 Waste Gas Stack		
EQUI 257: SO2 CEMS at Line 3 Waste Gas Stack		
EQUI 258: NOx CEMS at Line 5 Waste Gas		

SI ID: Description	Relationship type	Related SI ID: Description
Stack		
EQUI 259: SO2 CEMS at Line 5 Waste Gas Stack (SV 127)		
EQUI 260: SO2 CEMS at Line 6 Waste Gas Stack (SV 144)		
EQUI 261: NOx CEMS at Line 6 Waste Gas Stack (SV 144)		
EQUI 262: SO2 CEMS at Line 7 Waste Gas Stack (SV 151)		
EQUI 263: NOx CEMS at Line 7 Waste Gas Stack (SV 151)		
EQUI 264: SO2 CEMS at Line 4 Waste Gas Stack (SV 118)		
EQUI 265: NOx CEMS at Line 4 Waste Gas Stack (SV 118)		
EQUI 266: Hill Wood Products system	sends to	STRU 259: Hill Wood Products system
EQUI 266: Hill Wood Products system	is controlled by	TREA 171: Hill Wood Products Baghouse
EQUI 267: L6 Pellet Cooler Vent Stack	sends to	STRU 254: L6 Pellet Cooler Stack
EQUI 268: L7 Pellet Cooler Vent Stack	sends to	STRU 255: L7 Pellet Cooler Stack
EQUI 269: L6 Bentonite Blending	is controlled by	TREA 137: Line 6 Bentonite Blending Baghouse
EQUI 270: Step I 043/044 Conveyor Transfer	sends to	STRU 158: Step I 043/044 Conv. Trans
EQUI 272: L5 Conveyor Transfer Feeder (B4 L5 hygiene)	sends to	STRU 61: L5 Conveyor Transfer Feeder
EQUI 272: L5 Conveyor Transfer Feeder (B4 L5 hygiene)	is controlled by	TREA 132: Line 5 Pellet Cooler Discharge

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SI ID: Description	Relationship type	Related SI ID: Description
		Scrubber
EQUI 273: L5 Pellet Scrn Fine Belt	sends to	STRU 256: L5 Conveyor Transfer 041- 046 to 042 Belts
EQUI 273: L5 Pellet Scrn Fine Belt	is controlled by	TREA 133: 41, 46 Conveyor Transfer Scrubber
EQUI 274: Diesel Generator		
EQUI 275: Limestone Dump Pocket	sends to	STRU 253: Limestone Receiving System
EQUI 275: Limestone Dump Pocket	is controlled by	TREA 90: Limestone Receiving Baghouse
EQUI 278: S3 Ben storage+unloading hopper	sends to	STRU 113: Step III Bentonite Storage Baghouse
EQUI 278: S3 Ben storage+unloading hopper	sends to	STRU 139: S3 Bentonite Storage
EQUI 278: S3 Ben storage+unloading hopper	is controlled in parallel by	TREA 89: S3 Bentonite Storage Baghouse
EQUI 278: S3 Ben storage+unloading hopper	is controlled in parallel by	TREA 135: S3 Bentonite Storage Baghouse
EQUI 279: L4 Rotary Kiln	is monitored by	EQUI 264: SO2 CEMS at Line 4 Waste Gas Stack (SV 118)
EQUI 279: L4 Rotary Kiln	is monitored by	EQUI 265: NOx CEMS at Line 4 Waste Gas Stack (SV 118)
EQUI 279: L4 Rotary Kiln	is monitored by	EQUI 714: L4 Air Flow Meter
EQUI 279: L4 Rotary Kiln	sends to	EQUI 718: Agglomerator Lines 3-7 DAS
EQUI 279: L4 Rotary Kiln	is monitored by	EQUI 722: Line 4 Kiln Exit

SI ID: Description	Relationship type	Related SI ID: Description
		Temp Continuous Monitor
EQUI 279: L4 Rotary Kiln	sends to	EQUI 726: Agglomerator Lines 3-7 Parameter DAS
EQUI 279: L4 Rotary Kiln	sends to	STRU 208: L4 Waste Gas Stack
EQUI 279: L4 Rotary Kiln	is controlled by	TREA 37: Agglomerator II Line 4 Waste Gas Scrubber
EQUI 280: L5 Rotary Kiln	is monitored by	EQUI 258: NOx CEMS at Line 5 Waste Gas Stack
EQUI 280: L5 Rotary Kiln	is monitored by	EQUI 259: SO2 CEMS at Line 5 Waste Gas Stack (SV 127)
EQUI 280: L5 Rotary Kiln	is monitored by	EQUI 715: L5 Air Flow Meter
EQUI 280: L5 Rotary Kiln	sends to	EQUI 718: Agglomerator Lines 3-7 DAS
EQUI 280: L5 Rotary Kiln	is monitored by	EQUI 723: Line 5 Kiln Exit Temp Continuous Monitor
EQUI 280: L5 Rotary Kiln	sends to	EQUI 726: Agglomerator Lines 3-7 Parameter DAS
EQUI 280: L5 Rotary Kiln	sends to	STRU 60: L5 Waste Gas Stack
EQUI 280: L5 Rotary Kiln	is controlled by	TREA 38: Line 5 Waste Gas Scrubber
EQUI 281: Step III Coarse Crusher Pan Feeders	sends to	STRU 211: Step III Coarse Crusher Pan Feeders
EQUI 281: Step III Coarse Crusher Pan Feeders	is controlled in parallel by	TREA 120: Step III Coarse Crusher Pan Feeders

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SI ID: Description	Relationship type	Related SI ID: Description
		Scrubber
EQUI 281: Step III Coarse Crusher Pan Feeders	is controlled in parallel by	TREA 121: Step III Coarse Crusher Pan Feeders Scrubber
EQUI 281: Step III Coarse Crusher Pan Feeders	is controlled by	TREA 243: Step III Coarse Crusher Pan Feeders Cartridge Filter
EQUI 282: Zinc Melt Furnace	sends to	STRU 212: Zinc Melt Furnace
EQUI 283: Secondary Crusher L5	sends to	STRU 238: Secondary Crusher L5
EQUI 283: Secondary Crusher L5	is controlled by	TREA 267: Secondary Crusher L5 Cartridge Filter
EQUI 284: Conveyor Transfer 008-009	sends to	STRU 181: Conveyor Transfer 008-009
EQUI 284: Conveyor Transfer 008-009	is controlled by	TREA 230: Conveyor Transfer 008-009 Cartridge Filter
EQUI 285: Secondary Crusher L12	sends to	STRU 182: Secondary Crusher L12
EQUI 285: Secondary Crusher L12	is controlled by	TREA 58: Step III Secondary Crusher Line 12 Scrubber
EQUI 285: Secondary Crusher L12	is controlled by	TREA 246: Secondary Crusher L12 Cartridge Filter
EQUI 286: Secondary Crusher L13	sends to	STRU 240: Secondary Crusher L13
EQUI 286: Secondary Crusher L13	is controlled by	TREA 59: Step III Secondary Crusher Line 13 Scrubber
EQUI 286: Secondary Crusher L13	is controlled by	TREA 247: Secondary Crusher L13

SI ID: Description	Relationship type	Related SI ID: Description
		Cartridge Filter
EQUI 287: Secondary Crusher L15	sends to	STRU 241: Secondary Crusher L15
EQUI 287: Secondary Crusher L15	is controlled by	TREA 249: Secondary Crusher L15 Cartridge Filter
EQUI 288: Conveyor Transfer 003	sends to	STRU 242: Conveyor Transfer 003
EQUI 288: Conveyor Transfer 003	is controlled by	TREA 63: Conveyor Transfer 003 Scrubber
EQUI 288: Conveyor Transfer 003	is controlled by	TREA 264: Conveyor Transfer 003 Cartridge Filter
EQUI 289: Conveyor Transfer 003	sends to	STRU 242: Conveyor Transfer 003
EQUI 289: Conveyor Transfer 003	is controlled by	TREA 63: Conveyor Transfer 003 Scrubber
EQUI 289: Conveyor Transfer 003	is controlled by	TREA 264: Conveyor Transfer 003 Cartridge Filter
EQUI 290: Conveyor Transfer 003-004	sends to	STRU 243: Conveyor Transfer 003-004
EQUI 290: Conveyor Transfer 003-004	is controlled by	TREA 64: Conveyor Transfer 003 to 004 Scrubber
EQUI 290: Conveyor Transfer 003-004	is controlled by	TREA 262: Conveyor Transfer 003-004 Cartridge Filter
EQUI 291: Tertiary Storage 006-080 Bin	sends to	STRU 185: Tertiary Storage 006-080 Bins
EQUI 291: Tertiary Storage 006-080 Bin	is controlled by	TREA 65: Step III Tertiary

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SI ID: Description	Relationship type	Related SI ID: Description
		Storage 006-080 Bins Scrubber
EQUI 291: Tertiary Storage 006-080 Bin	is controlled by	TREA 269: Step III Tertiary Storage 006-080 Bins Cartridge Filter
EQUI 292: Tertiary Storage 006-080 Bin	sends to	STRU 185: Tertiary Storage 006-080 Bins
EQUI 292: Tertiary Storage 006-080 Bin	is controlled by	TREA 65: Step III Tertiary Storage 006-080 Bins Scrubber
EQUI 292: Tertiary Storage 006-080 Bin	is controlled by	TREA 269: Step III Tertiary Storage 006-080 Bins Cartridge Filter
EQUI 293: Tertiary Storage 006-080 Bin	sends to	STRU 185: Tertiary Storage 006-080 Bins
EQUI 293: Tertiary Storage 006-080 Bin	is controlled by	TREA 65: Step III Tertiary Storage 006-080 Bins Scrubber
EQUI 293: Tertiary Storage 006-080 Bin	is controlled by	TREA 269: Step III Tertiary Storage 006-080 Bins Cartridge Filter
EQUI 297: Tertiary Crusher L18	sends to	STRU 244: Tertiary Crusher L18
EQUI 297: Tertiary Crusher L18	is controlled by	TREA 66: Step III Tertiary Crusher Line 18 Scrubber
EQUI 297: Tertiary Crusher L18	is controlled by	TREA 250: Tertiary Crusher L18 Cartridge Filter
EQUI 298: Tertiary Crusher L19	sends to	STRU 186: Tertiary Crusher L19

SI ID: Description	Relationship type	Related SI ID: Description
EQUI 298: Tertiary Crusher L19	is controlled by	TREA 67: Step III Tertiary Crusher Line 19 Scrubber
EQUI 298: Tertiary Crusher L19	is controlled by	TREA 252: Tertiary Crusher L19 Cartridge Filter
EQUI 299: Tertiary Crusher L20	sends to	STRU 245: Tertiary Crusher L20
EQUI 299: Tertiary Crusher L20	is controlled by	TREA 68: Step III Tertiary Crusher Line 20 Scrubber
EQUI 299: Tertiary Crusher L20	is controlled by	TREA 253: Tertiary Crusher L20 Cartridge Filter
EQUI 300: Tertiary Crusher L21	sends to	STRU 187: Tertiary Crusher L21
EQUI 300: Tertiary Crusher L21	is controlled by	TREA 69: Step III Tertiary Crusher Line 21 Scrubber
EQUI 300: Tertiary Crusher L21	is controlled by	TREA 250: Tertiary Crusher L18 Cartridge Filter
EQUI 301: Tertiary Crusher L22	sends to	STRU 246: Tertiary Crusher L22
EQUI 301: Tertiary Crusher L22	is controlled by	TREA 70: Step III Tertiary Crusher Line 22 Scrubber
EQUI 301: Tertiary Crusher L22	is controlled by	TREA 254: Tertiary Crusher L22 Cartridge Filter
EQUI 303: Tertiary Crusher L24	sends to	STRU 188: Tertiary Crusher L24
EQUI 303: Tertiary Crusher L24	is controlled by	TREA 72: Step III Tertiary Crusher Line 24 Scrubber
EQUI 303: Tertiary Crusher L24	is controlled by	TREA 257: Tertiary

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SI ID: Description	Relationship type	Related SI ID: Description
		Crusher L24 Cartridge Filter
EQUI 304: Tertiary Crusher L25	sends to	STRU 247: Tertiary Crusher L25
EQUI 304: Tertiary Crusher L25	is controlled by	TREA 73: Step III Tertiary Crusher Line 25 Scrubber
EQUI 304: Tertiary Crusher L25	is controlled by	TREA 258: Tertiary Crusher L25 Cartridge Filter
EQUI 305: Tertiary Crusher L26	sends to	STRU 189: Tertiary Crusher L26
EQUI 305: Tertiary Crusher L26	is controlled by	TREA 74: Step III Tertiary Crusher Line 26 Scrubber
EQUI 305: Tertiary Crusher L26	is controlled by	TREA 259: Tertiary Crusher L26 Cartridge Filter
EQUI 309: Conveyor Transfer 005-006	sends to	STRU 191: Conveyor Transfer 005- 006
EQUI 309: Conveyor Transfer 005-006	is controlled by	TREA 215: Step III conveyor 005-006 Baghouse
EQUI 310: Conveyor Transfer 005-006	sends to	STRU 191: Conveyor Transfer 005- 006
EQUI 310: Conveyor Transfer 005-006	is controlled by	TREA 215: Step III conveyor 005-006 Baghouse
EQUI 311: Zinc Melt Furnace	sends to	STRU 250: Zinc Melt Furnace
EQUI 312: Zinc Melt Furnace	sends to	STRU 250: Zinc Melt Furnace
EQUI 313: Conveyor Transfer 009-020	sends to	STRU 251: Conveyor Transfer 009- 020
EQUI 313: Conveyor Transfer 009-020	is controlled by	TREA 229: Conveyor

SI ID: Description	Relationship type	Related SI ID: Description
		Transfer 009- 020 Cartridge Filter
EQUI 314: Conveyor Transfer 009-020	sends to	STRU 251: Conveyor Transfer 009- 020
EQUI 314: Conveyor Transfer 009-020	is controlled by	TREA 229: Conveyor Transfer 009- 020 Cartridge Filter
EQUI 315: L4 Conveyor Transfer 041/046 to 042 Belts	sends to	STRU 230: L4 Conveyor Transfer 041- 046 to 042 Belts
EQUI 315: L4 Conveyor Transfer 041/046 to 042 Belts	is controlled by	TREA 108: 41, 46 Conveyor Transfer Scrubber
EQUI 316: L5 Bentonite Day Bins	is controlled by	TREA 110: Line 5 Bentonite Day Bin Baghouse
EQUI 317: Zinc Melt Furnace		
EQUI 318: Conveyor Transfer 005-006	sends to	STRU 214: Conveyor Transfer 005- 006
EQUI 318: Conveyor Transfer 005-006	is controlled by	TREA 233: Conveyor Transfer 005- 006 Cartridge Filter
EQUI 319: Conveyor Transfer 010-01	sends to	STRU 196: Conveyor Transfer 010- 01
EQUI 319: Conveyor Transfer 010-01	is controlled by	TREA 212: Step I & II Conveyor transfer 010- 01 Baghouse
EQUI 320: Conveyor Transfer 010-01	sends to	STRU 196: Conveyor Transfer 010- 01
EQUI 320: Conveyor Transfer 010-01	is controlled by	TREA 212: Step I & II Conveyor

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SI ID: Description	Relationship type	Related SI ID: Description
		transfer 010-01 Baghouse
EQUI 321: Conveyor Transfer 004-005	sends to	STRU 216: Conveyor Transfer 004-005
EQUI 321: Conveyor Transfer 004-005	is controlled by	TREA 210: Conveyor Transfer 004-005 Baghouse
EQUI 322: Conveyor Transfer 004-005	sends to	STRU 216: Conveyor Transfer 004-005
EQUI 322: Conveyor Transfer 004-005	is controlled by	TREA 210: Conveyor Transfer 004-005 Baghouse
EQUI 323: Conveyor Transfer 004-005	sends to	STRU 216: Conveyor Transfer 004-005
EQUI 323: Conveyor Transfer 004-005	is controlled by	TREA 210: Conveyor Transfer 004-005 Baghouse
EQUI 324: Conveyor Transfer 011-02/03	sends to	STRU 217: Conveyor Transfer 011-02/03
EQUI 324: Conveyor Transfer 011-02/03	is controlled by	TREA 126: Transfer House Conveyor Transfer Scrubber
EQUI 324: Conveyor Transfer 011-02/03	is controlled by	TREA 244: Conveyor Transfer 011-02/03 Cartridge Filter
EQUI 325: Surge Pile/Reclaim 011-01	sends to	STRU 218: Surge Pile/Reclaim 011-01
EQUI 325: Surge Pile/Reclaim 011-01	is controlled by	TREA 127: Surge Pile/Reclaim Scrubber
EQUI 325: Surge Pile/Reclaim 011-01	is controlled by	TREA 236: Surge

SI ID: Description	Relationship type	Related SI ID: Description
		Pile/Reclaim 011-01 Cartridge Filter
EQUI 326: Conveyor Transfer 008 to 009	sends to	STRU 92: Conveyor Transfer 008-009
EQUI 326: Conveyor Transfer 008 to 009	is controlled by	TREA 221: Step I Conveyor Transfer 008 to 009 Baghouse
EQUI 327: Secondary Crusher L1	is controlled by	TREA 223: Step I Secondary Crusher Line 1 Baghouse
EQUI 328: Secondary Crusher L2	sends to	STRU 94: Secondary Crusher L2
EQUI 328: Secondary Crusher L2	is controlled by	TREA 226: Secondary Crusher L2 Cartridge Filter
EQUI 329: Secondary Crusher L4	sends to	STRU 96: Secondary Crusher L4
EQUI 329: Secondary Crusher L4	is controlled by	TREA 228: Secondary Crusher L4 Cartridge Filter
EQUI 330: Conveyor Transfer 005 to 006	sends to	STRU 97: Conveyor Transfer 005-006
EQUI 330: Conveyor Transfer 005 to 006	is controlled by	TREA 213: Step I conveyor 005-006 Baghouse
EQUI 331: Conveyor Transfer 003 to 004	sends to	STRU 98: Conveyor Transfer 003-004
EQUI 331: Conveyor Transfer 003 to 004	is controlled by	TREA 222: Step I Conveyor Transfer 003 to 004 Baghouse
EQUI 332: Conveyor Transfer 003 to 004	sends to	STRU 98: Conveyor Transfer 003-

SI ID: Description	Relationship type	Related SI ID: Description
		004
EQUI 332: Conveyor Transfer 003 to 004	is controlled by	TREA 222: Step I Conveyor Transfer 003 to 004 Baghouse
EQUI 333: Conveyor Transfer 003 to 004	sends to	STRU 98: Conveyor Transfer 003-004
EQUI 333: Conveyor Transfer 003 to 004	is controlled by	TREA 222: Step I Conveyor Transfer 003 to 004 Baghouse
EQUI 335: Tertiary Crusher L1	sends to	STRU 100: Tertiary Crusher L1
EQUI 335: Tertiary Crusher L1	is controlled by	TREA 194: Step I Tertiary Crusher Line 1 Baghouse
EQUI 336: Tertiary Crusher L3	sends to	STRU 102: Tertiary Crusher L3
EQUI 336: Tertiary Crusher L3	is controlled by	TREA 196: Step I Tertiary Crusher Line 3 Baghouse
EQUI 337: Tertiary Crusher L5	sends to	STRU 103: Tertiary Crusher L5
EQUI 337: Tertiary Crusher L5	is controlled by	TREA 198: Step I Tertiary Crusher Line 5 Baghouse
EQUI 338: Tertiary Crusher L6	sends to	STRU 104: Tertiary Crusher L6
EQUI 338: Tertiary Crusher L6	is controlled by	TREA 199: Step I Tertiary Crusher Line 6 Baghouse
EQUI 339: Secondary Crusher L6	sends to	STRU 223: Secondary Crusher L6
EQUI 339: Secondary Crusher L6	is controlled by	TREA 48: Step I Secondary Crusher Line 6 Scrubber

SI ID: Description	Relationship type	Related SI ID: Description
EQUI 339: Secondary Crusher L6	is controlled by	TREA 238: Secondary Crusher L6 Cartridge Filter
EQUI 340: Secondary Crusher L8	sends to	STRU 235: Secondary Crusher L8
EQUI 340: Secondary Crusher L8	is controlled by	TREA 50: Step I Secondary Crusher Line 8 Scrubber
EQUI 340: Secondary Crusher L8	is controlled by	TREA 239: Secondary Crusher L8 Cartridge Filter
EQUI 341: Secondary Crusher L9	sends to	STRU 178: Secondary Crusher L9
EQUI 341: Secondary Crusher L9	is controlled by	TREA 51: Step I Secondary Crusher Line 9 Scrubber
EQUI 341: Secondary Crusher L9	is controlled by	TREA 241: Secondary Crusher L9 Cartridge Filter
EQUI 342: Conveyor Transfer 008 to 009	sends to	STRU 180: Conveyor Transfer 008-009
EQUI 342: Conveyor Transfer 008 to 009	is controlled by	TREA 53: Step I Conveyor Transfer 008 to 009 Scrubber
EQUI 342: Conveyor Transfer 008 to 009	is controlled by	TREA 237: Conveyor Transfer 008-009 Cartridge Filter
EQUI 343: Conveyor Transfer 008 to 009	sends to	STRU 180: Conveyor Transfer 008-009
EQUI 343: Conveyor Transfer 008 to 009	is controlled by	TREA 53: Step I Conveyor Transfer 008 to 009 Scrubber
EQUI 343: Conveyor	is controlled	TREA 237:

SI ID: Description	Relationship type	Related SI ID: Description
Transfer 008 to 009	by	Conveyor Transfer 008- 009 Cartridge Filter
EQUI 345: L3 Bentonite Blending	is controlled by	TREA 94: Line 3 Bentonite Blending Baghouse
EQUI 346: L3 Bentonite Blending	is controlled by	TREA 94: Line 3 Bentonite Blending Baghouse
EQUI 347: L3 Grate Feed	sends to	STRU 120: L3 Grate Feed
EQUI 347: L3 Grate Feed	is controlled by	TREA 172: Line 3 Grate Feed Dynamic Wet Scrubber
EQUI 348: L3 Grate Discharge	sends to	STRU 201: L3 Grate Discharge
EQUI 348: L3 Grate Discharge	is controlled by	TREA 173: Line 3 Grate Discharge Dynamic Wet Scrubber
EQUI 350: L3 Cooler Vent Stack	sends to	STRU 121: L3 Cooler Vent Stack
EQUI 351: L3 Feeder 041/046 Belts	sends to	STRU 122: L3 Feeder 041, 046 Belts
EQUI 351: L3 Feeder 041/046 Belts	is controlled by	TREA 175: Line 3 Pellet Cooler Dynamic Wet Scrubber
EQUI 352: L3 041/046 Conveyor Belt Vent	sends to	STRU 203: L3 041/046 Conveyor Belt Vent
EQUI 353: S1 Conveyor Transfer 042-043	sends to	STRU 123: S1 Conveyor Transfer 042- 043
EQUI 353: S1 Conveyor Transfer 042-043	is controlled by	TREA 176: Step I Agglomerator 042 043 Conveyor Dynamic Wet Scrubber

SI ID: Description	Relationship type	Related SI ID: Description
EQUI 354: L3 Conveyor Transfer 041-042	sends to	STRU 204: L1 Conveyor Transfer 041- 042
EQUI 354: L3 Conveyor Transfer 041-042	is controlled by	TREA 177: Line 3 Conveyor Transfer 041 042 Dynamic Wet Scrubber
EQUI 355: S1 Bentonite Storage Bin	is controlled by	TREA 97: S1 Bentonite Storage Baghouse
EQUI 356: S1 Bentonite Storage Bin	is controlled by	TREA 97: S1 Bentonite Storage Baghouse
EQUI 357: L2,3 Bentonite Day Bin	is controlled by	TREA 98: Line 2, 3 Bentonite Day Bin Baghouse
EQUI 358: L2,3 Bentonite Day Bin	is controlled by	TREA 98: Line 2, 3 Bentonite Day Bin Baghouse
EQUI 359: S1,2 Bentonite Unloading	sends to	STRU 125: S1, 2 Bentonite Unloading
EQUI 359: S1,2 Bentonite Unloading	is controlled by	TREA 211: Agglomerators I & II Bentonite Unloading Baghouse
EQUI 360: S2 Bentonite Storage Bin	is controlled by	TREA 100: S2 Bentonite Storage Baghouse
EQUI 361: S2 Bentonite Storage Bin	is controlled by	TREA 100: S2 Bentonite Storage Baghouse
EQUI 362: L4 Bentonite Day Bins	is controlled by	TREA 101: Line 4 Bentonite Day Bin Baghouse
EQUI 363: L4 Bentonite Day Bins	is controlled by	TREA 101: Line 4 Bentonite Day Bin Baghouse
EQUI 364: L4	is controlled	TREA 101: Line

SI ID: Description	Relationship type	Related SI ID: Description
Bentonite Day Bins	by	4 Bentonite Day Bin Baghouse
EQUI 365: L4 Bentonite Blending	is controlled by	TREA 102: Line 4 Bentonite Blending Baghouse
EQUI 366: L4 Bentonite Blending	is controlled by	TREA 102: Line 4 Bentonite Blending Baghouse
EQUI 367: L4 Bentonite Blending	is controlled by	TREA 102: Line 4 Bentonite Blending Baghouse
EQUI 368: L4 Grate Discharge	sends to	STRU 128: L4 Grate Discharge
EQUI 368: L4 Grate Discharge	is controlled by	TREA 104: Agglomerators II Line 4 Grate Discharge Scrubber
EQUI 370: L4 Pellet Cooler Vent Stack	sends to	STRU 129: L4 Cooler Vent Stack
EQUI 371: L4 Cooler Discharge / Fines Conveyor	sends to	STRU 130: L4 Cooler Dump Zone
EQUI 371: L4 Cooler Discharge / Fines Conveyor	is controlled by	TREA 178: Line 4 Fines Conveyor Dynamic Wet Scrubber
EQUI 372: L4 Conveyor Transfer 041/046 to 042 Belts	sends to	STRU 230: L4 Conveyor Transfer 041-046 to 042 Belts
EQUI 372: L4 Conveyor Transfer 041/046 to 042 Belts	is controlled by	TREA 108: 41, 46 Conveyor Transfer Scrubber
EQUI 373: Electric Shop Curing Oven (new)	sends to	STRU 175: Electric Shop Curing Oven
EQUI 374: Step II Coarse Crusher Pan Feeders	sends to	STRU 195: Step II Coarse Crusher Pan Feeders

SI ID: Description	Relationship type	Related SI ID: Description
EQUI 374: Step II Coarse Crusher Pan Feeders	is controlled by	TREA 231: Step I Coarse Crusher Pan Feeder Cartridge Filter
EQUI 374: Step II Coarse Crusher Pan Feeders	is controlled by	TREA 232: Step II Coarse Crusher Pan Feeder Cartridge Filter
EQUI 375: Step III Coarse Crusher Pan Feeders	sends to	STRU 211: Step III Coarse Crusher Pan Feeders
EQUI 375: Step III Coarse Crusher Pan Feeders	is controlled in parallel by	TREA 120: Step III Coarse Crusher Pan Feeders Scrubber
EQUI 375: Step III Coarse Crusher Pan Feeders	is controlled in parallel by	TREA 121: Step III Coarse Crusher Pan Feeders Scrubber
EQUI 375: Step III Coarse Crusher Pan Feeders	is controlled by	TREA 243: Step III Coarse Crusher Pan Feeders Cartridge Filter
EQUI 376: Zinc Melt Furnace	sends to	STRU 213: Zinc Melt Furnace
EQUI 377: Conveyor Transfer 005-006	sends to	STRU 214: Conveyor Transfer 005-006
EQUI 377: Conveyor Transfer 005-006	is controlled by	TREA 233: Conveyor Transfer 005-006 Cartridge Filter
EQUI 378: Conveyor Transfer 004-005	sends to	STRU 216: Conveyor Transfer 004-005
EQUI 378: Conveyor Transfer 004-005	is controlled by	TREA 210: Conveyor Transfer 004-005 Baghouse
EQUI 379: Conveyor Transfer 004-005	sends to	STRU 216: Conveyor

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SI ID: Description	Relationship type	Related SI ID: Description
		Transfer 004-005
EQUI 379: Conveyor Transfer 004-005	is controlled by	TREA 210: Conveyor Transfer 004-005 Baghouse
EQUI 380: Conveyor Transfer 004-005	sends to	STRU 216: Conveyor Transfer 004-005
EQUI 380: Conveyor Transfer 004-005	is controlled by	TREA 210: Conveyor Transfer 004-005 Baghouse
EQUI 381: Conveyor Transfer 008 to 009	sends to	STRU 92: Conveyor Transfer 008-009
EQUI 381: Conveyor Transfer 008 to 009	is controlled by	TREA 221: Step I Conveyor Transfer 008 to 009 Baghouse
EQUI 382: Secondary Crusher L3	sends to	STRU 95: Secondary Crusher L3
EQUI 382: Secondary Crusher L3	is controlled by	TREA 227: Secondary Crusher L3 Cartridge Filter
EQUI 383: Conveyor Transfer 005 to 006	sends to	STRU 97: Conveyor Transfer 005-006
EQUI 383: Conveyor Transfer 005 to 006	is controlled by	TREA 213: Step I conveyor 005-006 Baghouse
EQUI 384: Conveyor Transfer 005 to 006	sends to	STRU 97: Conveyor Transfer 005-006
EQUI 384: Conveyor Transfer 005 to 006	is controlled by	TREA 213: Step I conveyor 005-006 Baghouse
EQUI 385: Conveyor Transfer 003 to 004	sends to	STRU 98: Conveyor Transfer 003-004

SI ID: Description	Relationship type	Related SI ID: Description
EQUI 385: Conveyor Transfer 003 to 004	is controlled by	TREA 222: Step I Conveyor Transfer 003 to 004 Baghouse
EQUI 386: Tertiary Storage Bin 1-4	sends to	STRU 100: Tertiary Crusher L1
EQUI 386: Tertiary Storage Bin 1-4	sends to	STRU 101: Tertiary Crusher L2
EQUI 386: Tertiary Storage Bin 1-4	is controlled by	TREA 194: Step I Tertiary Crusher Line 1 Baghouse
EQUI 386: Tertiary Storage Bin 1-4	is controlled by	TREA 195: Step I Tertiary Crusher Line 2 Baghouse
EQUI 387: Tertiary Storage Bin 1-4	sends to	STRU 103: Tertiary Crusher L5
EQUI 387: Tertiary Storage Bin 1-4	sends to	STRU 104: Tertiary Crusher L6
EQUI 387: Tertiary Storage Bin 1-4	is controlled by	TREA 198: Step I Tertiary Crusher Line 5 Baghouse
EQUI 387: Tertiary Storage Bin 1-4	is controlled by	TREA 199: Step I Tertiary Crusher Line 6 Baghouse
EQUI 388: Tertiary Crusher L2	sends to	STRU 101: Tertiary Crusher L2
EQUI 388: Tertiary Crusher L2	is controlled by	TREA 195: Step I Tertiary Crusher Line 2 Baghouse
EQUI 389: Tertiary Crusher L4	sends to	STRU 222: Tertiary Crusher L4
EQUI 389: Tertiary Crusher L4	is controlled by	TREA 197: Step I Tertiary Crusher Line 4 Baghouse
EQUI 390: Secondary Crusher L7	sends to	STRU 234: Secondary Crusher L7

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SI ID: Description	Relationship type	Related SI ID: Description
EQUI 390: Secondary Crusher L7	is controlled by	TREA 49: Step I Secondary Crusher Line 7 Scrubber
EQUI 390: Secondary Crusher L7	is controlled by	TREA 240: Secondary Crusher L7 Cartridge Filter
EQUI 392: Conveyor Transfer 001 to 070	sends to	STRU 237: Storage Bin 070-02
EQUI 392: Conveyor Transfer 001 to 070	is controlled by	TREA 54: Secondary Storage Bin 070-02 Scrubber
EQUI 392: Conveyor Transfer 001 to 070	is controlled by	TREA 234: Conveyor Transfer 001 to 070 Cartridge Filter
EQUI 393: Conveyor Transfer 009-020	sends to	STRU 251: Conveyor Transfer 009-020
EQUI 393: Conveyor Transfer 009-020	is controlled by	TREA 229: Conveyor Transfer 009-020 Cartridge Filter
EQUI 394: Conveyor Transfer 009-020	sends to	STRU 251: Conveyor Transfer 009-020
EQUI 394: Conveyor Transfer 009-020	is controlled by	TREA 229: Conveyor Transfer 009-020 Cartridge Filter
EQUI 395: Conveyor Transfer 009-020	sends to	STRU 117: Conveyor Transfer 009-020
EQUI 395: Conveyor Transfer 009-020	is controlled by	TREA 86: Step III Concentrator Tripper Transfer Scrubber
EQUI 395: Conveyor	is controlled	TREA 261:

SI ID: Description	Relationship type	Related SI ID: Description
Transfer 009-020	by	Conveyor Transfer 009-020 Cartridge Filter
EQUI 671: Diesel Generator	sends to	STRU 119: Diesel Generator
EQUI 672: New Emergency Generator	sends to	STRU 262: Guard Shack Emergency Generator
EQUI 673: Tertiary Crusher Line 28 New	sends to	STRU 190: Tertiary Crusher L28
EQUI 673: Tertiary Crusher Line 28 New	is controlled by	TREA 76: Step III Tertiary Crusher Line 28 Scrubber
EQUI 673: Tertiary Crusher Line 28 New	is controlled by	TREA 256: Tertiary Crusher L28 Cartridge Filter
EQUI 674: Replacement Tertiary Crusher L23 (Metso)	sends to	STRU 224: Tertiary Crusher L23
EQUI 674: Replacement Tertiary Crusher L23 (Metso)	is controlled by	TREA 71: Step III Tertiary Crusher Line 23 Scrubber
EQUI 674: Replacement Tertiary Crusher L23 (Metso)	is controlled by	TREA 255: Tertiary Crusher L23 Cartridge Filter
EQUI 675: Replacement Tertiary Crusher L27 (Metso)	sends to	STRU 248: Tertiary Crusher L27
EQUI 675: Replacement Tertiary Crusher L27 (Metso)	is controlled by	TREA 75: Step III Tertiary Crusher Line 27 Scrubber
EQUI 675: Replacement Tertiary Crusher L27 (Metso)	is controlled by	TREA 260: Tertiary Crusher L27 Cartridge Filter
EQUI 676: Clean-up Materials		
EQUI 678: Conveyor Transfer HPGR		
EQUI 679: Conveyor		

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SI ID: Description	Relationship type	Related SI ID: Description
Transfer HPGR		
EQUI 680: Conveyor Transfer HPGR		
EQUI 681: Conveyor Transfer HPGR		
EQUI 682: HPGR Grinder		
EQUI 683: Conveyor Transfer HPGR		
EQUI 684: Coal Unloading Hopper	sends to	STRU 171: Coal Unloading Silo
EQUI 685: Coal Day Bin/Conveyor Transfer	sends to	STRU 84: Coal Day Bin/Conveyor Transfer
EQUI 688: Utility Plant Diesel Generator S1	sends to	STRU 147: Diesel Generator
EQUI 689: Utility Plant Diesel Generator S3	sends to	STRU 194: Diesel Generator
EQUI 690: Utility Plant Diesel Pump	sends to	STRU 148: Diesel Fire Pump
EQUI 691: Diesel Generator	sends to	STRU 151: Diesel Generator
EQUI 692: Diesel Generator	sends to	STRU 172: Diesel Generator
EQUI 693: Diesel Generator	sends to	STRU 85: Diesel Generator
EQUI 694: Diesel Generator	sends to	STRU 173: Diesel Generator
EQUI 695: Diesel Generator	sends to	STRU 174: Diesel Generator
EQUI 696: Diesel Generator	sends to	STRU 220: Diesel Generator
EQUI 697: Conveyor Transfer	sends to	STRU 264: Step 1 043 Conveyor Vents
EQUI 698: Conveyor Transfer	sends to	STRU 265: Step 1 043 Conveyor Vents

SI ID: Description	Relationship type	Related SI ID: Description
EQUI 699: Conveyor Transfer	sends to	STRU 266: Step 1 043 Conveyor Vents
EQUI 700: Conveyor Transfer	sends to	STRU 267: Step 1 043 Conveyor Vents
EQUI 701: Conveyor Transfer	sends to	STRU 268: Step 1 043 Conveyor Vents
EQUI 702: Conveyor Transfer	sends to	STRU 269: Step 1 043 Conveyor Vents
EQUI 703: Fire Hall Emergency Generator	sends to	STRU 270: Fire Hall Emergency Generator
EQUI 704: Limestone Conveyor Transfer 2	sends to	STRU 249: Tertiary Crusher L29
EQUI 704: Limestone Conveyor Transfer 2	is controlled by	TREA 214: Limestone Conveyor Transfer Baghouse
EQUI 705: Limestone Dump Pocket	sends to	STRU 253: Limestone Receiving System
EQUI 705: Limestone Dump Pocket	is controlled by	TREA 90: Limestone Receiving Baghouse
EQUI 706: Step II Agglomerator Emergency Generator	sends to	STRU 229: Diesel Generator
EQUI 707: Line 3 Waste Gas Cyclone	is controlled by	TREA 224: Line 3 Waste Gas Scrubber
EQUI 708: Line 4 Waste Gas Cyclone	is controlled by	TREA 37: Agglomerator II Line 4 Waste Gas Scrubber
EQUI 709: Line 5 Waste Gas Cyclone	is controlled by	TREA 38: Line 5 Waste Gas Scrubber
EQUI 710: Line 6	is controlled	TREA 143: Line

SI ID: Description	Relationship type	Related SI ID: Description
Waste Gas Cyclone	by	6 Waste Gas Stack Scrubber
EQUI 711: Line 7 Waste Gas Cyclone	is controlled by	TREA 151: Line 7 Waste Gas Stack Scrubber
EQUI 712: Burnout Oven	sends to	STRU 176: Burnout Oven
EQUI 713: L3 Air Flow Meter		
EQUI 714: L4 Air Flow Meter		
EQUI 715: L5 Air Flow Meter		
EQUI 716: L6 Air Flow Meter		
EQUI 717: L7 Air Flow Meter		
EQUI 718: Agglomerator Lines 3-7 DAS	receives from	EQUI 256: NOx CEMS at Line 3 Waste Gas Stack
EQUI 718: Agglomerator Lines 3-7 DAS	receives from	EQUI 257: SO2 CEMS at Line 3 Waste Gas Stack
EQUI 718: Agglomerator Lines 3-7 DAS	receives from	EQUI 258: NOx CEMS at Line 5 Waste Gas Stack
EQUI 718: Agglomerator Lines 3-7 DAS	receives from	EQUI 259: SO2 CEMS at Line 5 Waste Gas Stack (SV 127)
EQUI 718: Agglomerator Lines 3-7 DAS	receives from	EQUI 260: SO2 CEMS at Line 6 Waste Gas Stack (SV 144)
EQUI 718: Agglomerator Lines 3-7 DAS	receives from	EQUI 261: NOx CEMS at Line 6 Waste Gas Stack (SV 144)
EQUI 718: Agglomerator Lines 3-7 DAS	receives from	EQUI 262: SO2 CEMS at Line 7 Waste Gas Stack (SV 151)
EQUI 718: Agglomerator Lines 3-7 DAS	receives from	EQUI 263: NOx CEMS at Line 7 Waste Gas Stack (SV 151)
EQUI 718:	receives from	EQUI 264: SO2

SI ID: Description	Relationship type	Related SI ID: Description
Agglomerator Lines 3-7 DAS		CEMS at Line 4 Waste Gas Stack (SV 118)
EQUI 718: Agglomerator Lines 3-7 DAS	receives from	EQUI 265: NOx CEMS at Line 4 Waste Gas Stack (SV 118)
EQUI 718: Agglomerator Lines 3-7 DAS	receives from	EQUI 713: L3 Air Flow Meter
EQUI 718: Agglomerator Lines 3-7 DAS	receives from	EQUI 714: L4 Air Flow Meter
EQUI 718: Agglomerator Lines 3-7 DAS	receives from	EQUI 715: L5 Air Flow Meter
EQUI 718: Agglomerator Lines 3-7 DAS	receives from	EQUI 716: L6 Air Flow Meter
EQUI 718: Agglomerator Lines 3-7 DAS	receives from	EQUI 717: L7 Air Flow Meter
EQUI 721: Line 3 Kiln Exit Temp Continuous Monitor		
EQUI 722: Line 4 Kiln Exit Temp Continuous Monitor		
EQUI 723: Line 5 Kiln Exit Temp Continuous Monitor		
EQUI 724: Line 6 Kiln Exit Temp Continuous Monitor		
EQUI 725: Line 7 Kiln Exit Temp Continuous Monitor		
EQUI 726: Agglomerator Lines 3-7 Parameter DAS	receives from	EQUI 721: Line 3 Kiln Exit Temp Continuous Monitor
EQUI 726: Agglomerator Lines 3-7 Parameter DAS	receives from	EQUI 722: Line 4 Kiln Exit Temp Continuous Monitor
EQUI 726: Agglomerator Lines 3-7 Parameter DAS	receives from	EQUI 723: Line 5 Kiln Exit Temp

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		Continuous Monitor
EQUI 726: Agglomerator Lines 3-7 Parameter DAS	receives from	EQUI 724: Line 6 Kiln Exit Temp Continuous Monitor
EQUI 726: Agglomerator Lines 3-7 Parameter DAS	receives from	EQUI 725: Line 7 Kiln Exit Temp Continuous Monitor
FUGI 1: Group 13 screened pellets stock pile		
FUGI 3: Coarse tailings stock pile		
FUGI 4: Ballast fines rock stock pile - east pit		
FUGI 5: Ballast product rock stock pile - western		
FUGI 6: Surface overburden stock pile		
FUGI 8: Unpaved road for heavy-duty vehicles	is controlled by	TREA 268: Road dust suppression
FUGI 9: Crude Ore Stock Pile		
FUGI 10: Group 13 screened fines stock pile		
FUGI 11: Ballast feed rock stock pile - east pit		
FUGI 12: Waste Rock Stock Pile		
FUGI 14: Step I/II crude ore stock pile		
FUGI 15: Step II/III concentrate stock pile		
FUGI 16: Tailings Basin		
FUGI 17: Step I/II pellet main stock pile #45		
FUGI 18: Blasting & material handling		
FUGI 19: Step I/II Crude Ore Stockpile Temp 72		

SI ID: Description	Relationship type	Related SI ID: Description
FUGI 20: Unpaved road for secondary vehicles	is controlled by	TREA 268: Road dust suppression
FUGI 21: Step III Crude Ore Stockpile Temp 74		
FUGI 22: Ballast product rock stock pile - east pit		
FUGI 23: Step I/II pellet main stock pile #44		
FUGI 24: Group 13 feed stock pile		
FUGI 25: Ballast fines rock stock pile - western		
FUGI 26: Unpaved road for light-duty vehicles		
FUGI 27: Scrap rod stock pile		
FUGI 28: Step III pellet main stock pile		
FUGI 29: Ballast feed rock stock pile - western		
FUGI 36: Contractor Activities		
FUGI 37: Step III crude ore stockpile		
STRU 5: Utility Plant		
STRU 6: Step I & II Boiler Bldg		
STRU 7: Step III Boiler Bldg		
STRU 8: Generator Bldg		
STRU 9: Mobile Equipment Shop		
STRU 10: Heating Boilers 1 & 2		
STRU 11: Emergency Generator Shed		
STRU 12: Step I & II Coarse Crusher		
STRU 13: CC Dump Pocket Baghouses		
STRU 14: Conveyor Transfers		
STRU 15: Step I & II Zinc Furnaces		

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SI ID: Description	Relationship type	Related SI ID: Description
STRU 16: Step III Coarse Crusher		
STRU 17: CC Dump Pocket Baghouse		
STRU 18: Panfeeder to Conveyor		
STRU 19: Step III Zinc Furnaces		
STRU 20: Step I & II Turn Bin Area		
STRU 21: Step I & II Turn Bin		
STRU 22: Stockpile Reclaim Scrubber House		
STRU 23: Conveyor		
STRU 24: Step III Turn Bin Area		
STRU 25: Step III Turn Bin		
STRU 26: Transfer House		
STRU 27: Fines Crusher		
STRU 28: Step I & II Fines Crusher Bldg		
STRU 29: Step I Fines Crusher Bldg		
STRU 30: Step III Fines Crusher Bldg		
STRU 31: Step III Conveyor Bldg		
STRU 32: Step III Fines Crusher Bldg		
STRU 33: Step III Fines Crusher Bldg		
STRU 34: Concentrator		
STRU 35: Step I & II Concentrator		
STRU 36: Step I Concentrator		
STRU 37: Step I & III Concentrator		
STRU 38: Agglomerator I & II		
STRU 39: Step I & II Agglomerator		
STRU 40: Step I & II Agglomerator		
STRU 41: Step I & II Agglomerator		

SI ID: Description	Relationship type	Related SI ID: Description
STRU 42: Step I & II Agglomerator		
STRU 43: Step I & II Agglomerator		
STRU 44: Step I & II Agglomerator		
STRU 45: Step I & II Agglomerator		
STRU 46: Agglomerator Step III		
STRU 47: Step III Agglomerator		
STRU 48: Step III Agglomerator		
STRU 49: Step III Agglomerator		
STRU 50: Step III Agglomerator		
STRU 51: Step III Agglomerator		
STRU 52: Coal Day Bin		
STRU 53: Generator Bldg		
STRU 54: Coal Unloading & Storage Silo		
STRU 55: Step III Cooling Tower		
STRU 56: Incinerator		
STRU 57: Central Shops		
STRU 58: Central Shop		
STRU 59: Carpenter's Shop		
STRU 60: L5 Waste Gas Stack		
STRU 61: L5 Conveyor Transfer Feeder		
STRU 64: S3 Conveyor Transfer		
STRU 66: L6 Grate Discharge		
STRU 67: L6 Conveyor Transfer		
STRU 69: L7 Waste Gas Stack		
STRU 70: L7 Conveyor Transfer		
STRU 71: Step I 043/044 Conv. Trans		

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SI ID: Description	Relationship type	Related SI ID: Description
STRU 72: Step III 042 Conveyor Vent		
STRU 73: Step III 044 Conveyor Vent		
STRU 74: Step III 044 Conveyor Vent		
STRU 75: Step III 044 Conveyor Vent		
STRU 76: Step III 044 Conveyor Vent		
STRU 77: Step III 044 Conveyor Vent		
STRU 78: Step III 044 Conveyor Vent		
STRU 79: Step III 044 Conveyor Vent		
STRU 80: Step III 043/044 Conveyor Transfer		
STRU 81: Step III 043/044 Conveyor Transfer		
STRU 82: Step III 044-6/044-7 Conveyor Transfer		
STRU 83: Step III Pellet Loadout		
STRU 84: Coal Day Bin/Conveyor Transfer		
STRU 85: Diesel Generator		
STRU 86: Diesel Air Compressor		
STRU 88: Paint Shop Booth		
STRU 89: Paint Shop Booth		
STRU 90: Step I & II Pellet Loadout		
STRU 91: Step III Pellet Loadout		
STRU 92: Conveyor Transfer 008-009		
STRU 94: Secondary Crusher L2		
STRU 95: Secondary Crusher L3		
STRU 96: Secondary Crusher L4		
STRU 97: Conveyor		

SI ID: Description	Relationship type	Related SI ID: Description
Transfer 005-006		
STRU 98: Conveyor Transfer 003-004		
STRU 100: Tertiary Crusher L1		
STRU 101: Tertiary Crusher L2		
STRU 102: Tertiary Crusher L3		
STRU 103: Tertiary Crusher L5		
STRU 104: Tertiary Crusher L6		
STRU 105: Tertiary Crusher L7		
STRU 106: Tertiary Crusher L8		
STRU 107: Tertiary Crusher L9		
STRU 108: Tertiary Crusher L10		
STRU 109: Tertiary Crusher L11		
STRU 110: Tertiary Crusher L12		
STRU 111: Tertiary Crusher L13		
STRU 112: Tertiary Crusher L14		
STRU 113: Step III Bentonite Storage Baghouse		
STRU 114: Storage Bin L3, 4		
STRU 115: Storage Bin L7, 8		
STRU 116: Storage Bin L9, 10		
STRU 117: Conveyor Transfer 009-020		
STRU 118: Storage Bin L15, 16		
STRU 119: Diesel Generator		
STRU 120: L3 Grate Feed		
STRU 121: L3 Cooler Vent Stack		
STRU 122: L3 Feeder 041, 046 Belts		

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SI ID: Description	Relationship type	Related SI ID: Description
STRU 123: S1 Conveyor Transfer 042-043		
STRU 125: S1, 2 Bentonite Unloading		
STRU 127: L4 Grate Feed		
STRU 128: L4 Grate Discharge		
STRU 129: L4 Cooler Vent Stack		
STRU 130: L4 Cooler Dump Zone		
STRU 133: L5 Cooler Vent Stack		
STRU 134: L5 Cooler Dump Zone		
STRU 139: S3 Bentonite Storage		
STRU 141: L6 Grate Feed		
STRU 142: SI 104 MMBtu Boiler		
STRU 143: SI 104 MMBtu Boiler		
STRU 144: SII 125 MMBtu Boiler		
STRU 145: SIII 153 MMBtu Boiler		
STRU 146: SIII 153 MMBtu Boiler		
STRU 147: Diesel Generator		
STRU 148: Diesel Fire Pump		
STRU 149: 24.6 MMBtu Boiler		
STRU 150: 24.6 MMBtu Boiler		
STRU 151: Diesel Generator		
STRU 152: Step I Coarse Crusher		
STRU 153: Step II Coarse Crusher		
STRU 154: Step III Coarse Crusher		
STRU 155: L6 Waste Gas Stack		
STRU 157: L7 Grate Feed		

SI ID: Description	Relationship type	Related SI ID: Description
STRU 158: Step I 043/044 Conv. Trans		
STRU 159: Step III 042 Conveyor Vent		
STRU 160: Step III 043 Conveyor Vent		
STRU 161: Step III 043 Conveyor Vent		
STRU 162: Step III 044 Conveyor Vent		
STRU 163: Step III 044 Conveyor Vent		
STRU 164: Step III 044 Conveyor Vent		
STRU 165: Step III 044 Conveyor Vent		
STRU 166: Step III 044 Conveyor Vent		
STRU 167: Step III 044 Conveyor Vent		
STRU 168: Step III 044 Conveyor Vent		
STRU 169: Step III 043/044 Conveyor Transfer		
STRU 170: Step III 044-6/044-7 Conveyor Transfer		
STRU 171: Coal Unloading Silo		
STRU 172: Diesel Generator		
STRU 173: Diesel Generator		
STRU 174: Diesel Generator		
STRU 175: Electric Shop Curing Oven		
STRU 176: Burnout Oven		
STRU 177: Carpenters Shop		
STRU 178: Secondary Crusher L9		
STRU 179: Conveyor Transfer 005 Discharge		
STRU 180: Conveyor Transfer 008-009		
STRU 181: Conveyor Transfer 008-009		

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SI ID: Description	Relationship type	Related SI ID: Description
STRU 182: Secondary Crusher L12		
STRU 183: Secondary Crusher L14		
STRU 184: Conveyor Transfer 001-070 Bin		
STRU 185: Tertiary Storage 006-080 Bins		
STRU 186: Tertiary Crusher L19		
STRU 187: Tertiary Crusher L21		
STRU 188: Tertiary Crusher L24		
STRU 189: Tertiary Crusher L26		
STRU 190: Tertiary Crusher L28		
STRU 191: Conveyor Transfer 005-006		
STRU 192: Storage Bin L1, 2		
STRU 193: Storage Bin L5, 6		
STRU 194: Diesel Generator		
STRU 195: Step II Coarse Crusher Pan Feeders		
STRU 196: Conveyor Transfer 010-01		
STRU 197: Storage Bin L11, 12		
STRU 198: Storage Bin L13, 14		
STRU 199: Storage Bin L17, 18		
STRU 201: L3 Grate Discharge		
STRU 202: L3 Cooler Dump Zone		
STRU 203: L3 041/046 Conveyor Belt Vent		
STRU 204: L1 Conveyor Transfer 041-042		
STRU 208: L4 Waste Gas Stack		
STRU 209: L4 Conveyor Transfer Feeder		
STRU 210: Step I		

SI ID: Description	Relationship type	Related SI ID: Description
Coarse Crusher Pan Feeders		
STRU 211: Step III Coarse Crusher Pan Feeders		
STRU 212: Zinc Melt Furnace		
STRU 213: Zinc Melt Furnace		
STRU 214: Conveyor Transfer 005-006		
STRU 215: Conveyor Transfer 005-006		
STRU 216: Conveyor Transfer 004-005		
STRU 217: Conveyor Transfer 011-02/03		
STRU 218: Surge Pile/Reclaim 011-01		
STRU 219: Conveyor Transfer 005 Feed		
STRU 220: Diesel Generator		
STRU 221: L5 Grate Feed		
STRU 222: Tertiary Crusher L4		
STRU 223: Secondary Crusher L6		
STRU 224: Tertiary Crusher L23		
STRU 225: L3 Waste Gas Stack		
STRU 226: L5 Grate Discharge		
STRU 227: L7 Grate Discharge		
STRU 228: Step III 043/044 Conveyor Transfer		
STRU 229: Diesel Generator		
STRU 230: L4 Conveyor Transfer 041-046 to 042 Belts		
STRU 231: Tertiary Crusher L15		
STRU 232: Tertiary Crusher L16		
STRU 234: Secondary		

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SI ID: Description	Relationship type	Related SI ID: Description
Crusher L7		
STRU 235: Secondary Crusher L8		
STRU 236: Secondary Crusher L10		
STRU 237: Storage Bin 070-02		
STRU 238: Secondary Crusher L5		
STRU 239: Secondary Crusher L11		
STRU 240: Secondary Crusher L13		
STRU 241: Secondary Crusher L15		
STRU 242: Conveyor Transfer 003		
STRU 243: Conveyor Transfer 003-004		
STRU 244: Tertiary Crusher L18		
STRU 245: Tertiary Crusher L20		
STRU 246: Tertiary Crusher L22		
STRU 247: Tertiary Crusher L25		
STRU 248: Tertiary Crusher L27		
STRU 249: Tertiary Crusher L29		
STRU 250: Zinc Melt Furnace		
STRU 251: Conveyor Transfer 009-020		
STRU 252: Heaters (25 units, Ltr 8/10/01)		
STRU 253: Limestone Receiving System		
STRU 254: L6 Pellet Cooler Stack		
STRU 255: L7 Pellet Cooler Stack		
STRU 256: L5 Conveyor Transfer 041-046 to 042 Belts		
STRU 259: Hill Wood Products system		
STRU 262: Guard Shack Emergency Generator		

SI ID: Description	Relationship type	Related SI ID: Description
STRU 264: Step 1 043 Conveyor Vents		
STRU 265: Step 1 043 Conveyor Vents		
STRU 266: Step 1 043 Conveyor Vents		
STRU 267: Step 1 043 Conveyor Vents		
STRU 268: Step 1 043 Conveyor Vents		
STRU 269: Step 1 043 Conveyor Vents		
STRU 270: Fire Hall Emergency Generator		
STRU 271: Line 6 Steam Collection Exhaust Stack		
TREA 37: Agglomerator II Line 4 Waste Gas Scrubber		
TREA 38: Line 5 Waste Gas Scrubber		
TREA 48: Step I Secondary Crusher Line 6 Scrubber		
TREA 49: Step I Secondary Crusher Line 7 Scrubber		
TREA 50: Step I Secondary Crusher Line 8 Scrubber		
TREA 51: Step I Secondary Crusher Line 9 Scrubber		
TREA 52: Step I Secondary Crusher Line 10 Scrubber		
TREA 53: Step I Conveyor Transfer 008 to 009 Scrubber		
TREA 54: Secondary Storage Bin 070-02 Scrubber		
TREA 57: Step III Secondary Crusher Line 11 Scrubber		
TREA 58: Step III Secondary Crusher Line 12 Scrubber		
TREA 59: Step III		

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SI ID: Description	Relationship type	Related SI ID: Description
Secondary Crusher Line 13 Scrubber		
TREA 62: Conveyor Transfer 001-070 Bin Scrubber		
TREA 63: Conveyor Transfer 003 Scrubber		
TREA 64: Conveyor Transfer 003 to 004 Scrubber		
TREA 65: Step III Tertiary Storage 006- 080 Bins Scrubber		
TREA 66: Step III Tertiary Crusher Line 18 Scrubber		
TREA 67: Step III Tertiary Crusher Line 19 Scrubber		
TREA 68: Step III Tertiary Crusher Line 20 Scrubber		
TREA 69: Step III Tertiary Crusher Line 21 Scrubber		
TREA 70: Step III Tertiary Crusher Line 22 Scrubber		
TREA 71: Step III Tertiary Crusher Line 23 Scrubber		
TREA 72: Step III Tertiary Crusher Line 24 Scrubber		
TREA 73: Step III Tertiary Crusher Line 25 Scrubber		
TREA 74: Step III Tertiary Crusher Line 26 Scrubber		
TREA 75: Step III Tertiary Crusher Line 27 Scrubber		
TREA 76: Step III Tertiary Crusher Line 28 Scrubber		
TREA 86: Step III Concentrator Tripper Transfer Scrubber		
TREA 89: S3 Bentonite		

SI ID: Description	Relationship type	Related SI ID: Description
Storage Baghouse		
TREA 90: Limestone Receiving Baghouse		
TREA 94: Line 3 Bentonite Blending Baghouse		
TREA 97: S1 Bentonite Storage Baghouse		
TREA 98: Line 2, 3 Bentonite Day Bin Baghouse		
TREA 99: Agglomerators I & II Bentonite Unloading Baghouse		
TREA 100: S2 Bentonite Storage Baghouse		
TREA 101: Line 4 Bentonite Day Bin Baghouse		
TREA 102: Line 4 Bentonite Blending Baghouse		
TREA 103: Agglomerators II Line 4 Grate Feed Scrubber		
TREA 104: Agglomerators II Line 4 Grate Discharge Scrubber		
TREA 107: Agglomerator I Line 4 Cooler Discharge Scrubber		
TREA 108: 41, 46 Conveyor Transfer Scrubber		
TREA 110: Line 5 Bentonite Day Bin Baghouse		
TREA 111: Line 5 Bentonite Blending Baghouse		
TREA 112: Agglomerator II Line 5 Grate Feed Scrubber		
TREA 113: Agglomerator II Line 5 Grate Discharge		

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SI ID: Description	Relationship type	Related SI ID: Description
Scrubber		
TREA 115: Step I Coarse Crusher Baghouse		
TREA 116: Step II Coarse Crusher Baghouse		
TREA 117: Step III Coarse Crusher Baghouse		
TREA 120: Step III Coarse Crusher Pan Feeders Scrubber		
TREA 121: Step III Coarse Crusher Pan Feeders Scrubber		
TREA 126: Transfer House Conveyor Transfer Scrubber		
TREA 127: Surge Pile/Reclaim Scrubber		
TREA 130: Line 7 Bentonite Day Bin Baghouse		
TREA 132: Line 5 Pellet Cooler Discharge Scrubber		
TREA 133: 41, 46 Conveyor Transfer Scrubber		
TREA 134: Agglomerator III S3 Conveyor Transfer Scrubber		
TREA 135: S3 Bentonite Storage Baghouse		
TREA 136: Line 6 Bentonite Day Bin Baghouse		
TREA 137: Line 6 Bentonite Blending Baghouse		
TREA 138: Line 6 Grate Feed Scrubber		
TREA 139: Line 6 Grate Discharge Scrubber		
TREA 143: Line 6 Waste Gas Stack Scrubber		

SI ID: Description	Relationship type	Related SI ID: Description
TREA 145: Line 7 Bentonite Blending Baghouse		
TREA 146: Line 7 Grate Feed Scrubber		
TREA 147: Line 7 Grate Discharge Scrubber		
TREA 151: Line 7 Waste Gas Stack Scrubber		
TREA 171: Hill Wood Products Baghouse		
TREA 172: Line 3 Grate Feed Dynamic Wet Scrubber		
TREA 173: Line 3 Grate Discharge Dynamic Wet Scrubber		
TREA 174: Line 3 Cooler Discharge Dynamic Wet Scrubber		
TREA 175: Line 3 Pellet Cooler Dynamic Wet Scrubber		
TREA 176: Step I Agglomerator 042 043 Conveyor Dynamic Wet Scrubber		
TREA 177: Line 3 Conveyor Transfer 041 042 Dynamic Wet Scrubber		
TREA 178: Line 4 Fines Conveyor Dynamic Wet Scrubber		
TREA 179: Line 5 Fines Conveyor Dynamic Wet Scrubber		
TREA 185: Agglomerator III Line 7 Conveyor Transfer Scrubber		
TREA 187: Step III Storage Bin Line 15, 16 Scrubber		
TREA 188: Storage Bins Lines 1,2 Scrubber		
TREA 189: Storage Bins Lines 3,4 Scrubber		
TREA 190: Storage Bins		

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SI ID: Description	Relationship type	Related SI ID: Description
Lines 5,6 Scrubber		
TREA 191: Storage Bins Lines 7,8 Scrubber		
TREA 192: Storage Bins Lines 9,10 Scrubber		
TREA 193: Storage Bins Lines 11,12 Scrubber		
TREA 194: Step I Tertiary Crusher Line 1 Baghouse		
TREA 195: Step I Tertiary Crusher Line 2 Baghouse		
TREA 196: Step I Tertiary Crusher Line 3 Baghouse		
TREA 197: Step I Tertiary Crusher Line 4 Baghouse		
TREA 198: Step I Tertiary Crusher Line 5 Baghouse		
TREA 199: Step I Tertiary Crusher Line 6 Baghouse		
TREA 200: Step I Tertiary Crusher Line 7 Baghouse		
TREA 201: Step I Tertiary Crusher Line 8 Baghouse		
TREA 202: Step I Tertiary Crusher Line 9 Baghouse		
TREA 203: Step I Tertiary Crusher Line 10 Baghouse		
TREA 204: Step I Tertiary Crusher Line 11 Baghouse		
TREA 205: Step I Tertiary Crusher Line 12 Baghouse		
TREA 206: Step I Tertiary Crusher Line 13 Baghouse		
TREA 207: Step I Tertiary Crusher Line 14 Baghouse		
TREA 208: Step I		

SI ID: Description	Relationship type	Related SI ID: Description
Tertiary Crusher Line 15 Baghouse		
TREA 209: Step I Tertiary Crusher Line 16 Baghouse		
TREA 210: Conveyor Transfer 004-005 Baghouse		
TREA 211: Agglomerators I & II Bentonite Unloading Baghouse		
TREA 212: Step I & II Conveyor transfer 010- 01 Baghouse		
TREA 213: Step I conveyor 005-006 Baghouse		
TREA 214: Limestone Conveyor Transfer Baghouse		
TREA 215: Step III conveyor 005-006 Baghouse		
TREA 216: Step III Storage Bin Lines 17, 18 Baghouse		
TREA 217: Storage Bin L15,16 Cartridge Filter		
TREA 218: Step III Storage Bin Lines 13, 14 Baghouse		
TREA 219: Step III Conveyor Transfer 005 Feed Baghouse		
TREA 220: Step III Conveyor Transfer 005 Discharge Baghouse		
TREA 221: Step I Conveyor Transfer 008 to 009 Baghouse		
TREA 222: Step I Conveyor Transfer 003 to 004 Baghouse		
TREA 223: Step I Secondary Crusher Line 1 Baghouse		
TREA 224: Line 3 Waste Gas Scrubber		
TREA 225: L6 Steam		

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SI ID: Description	Relationship type	Related SI ID: Description
Collection Venturi Scrubber		
TREA 226: Secondary Crusher L2 Cartridge Filter		
TREA 227: Secondary Crusher L3 Cartridge Filter		
TREA 228: Secondary Crusher L4 Cartridge Filter		
TREA 229: Conveyor Transfer 009-020 Cartridge Filter		
TREA 230: Conveyor Transfer 008-009 Cartridge Filter		
TREA 231: Step I Coarse Crusher Pan Feeder Cartridge Filter		
TREA 232: Step II Coarse Crusher Pan Feeder Cartridge Filter		
TREA 233: Conveyor Transfer 005-006 Cartridge Filter		
TREA 234: Conveyor Transfer 001 to 070 Cartridge Filter		
TREA 235: Conveyor Transfer 005-006 Cartridge Filter		
TREA 236: Surge Pile/Reclaim 011-01 Cartridge Filter		
TREA 237: Conveyor Transfer 008-009 Cartridge Filter		
TREA 238: Secondary Crusher L6 Cartridge Filter		
TREA 239: Secondary Crusher L8 Cartridge Filter		
TREA 240: Secondary Crusher L7 Cartridge Filter		
TREA 241: Secondary Crusher L9 Cartridge Filter		

SI ID: Description	Relationship type	Related SI ID: Description
TREA 242: Secondary Crusher L10 Cartridge Filter		
TREA 243: Step III Coarse Crusher Pan Feeders Cartridge Filter		
TREA 244: Conveyor Transfer 011-02/03 Cartridge Filter		
TREA 245: Secondary Crusher L11 Cartridge Filter		
TREA 246: Secondary Crusher L12 Cartridge Filter		
TREA 247: Secondary Crusher L13 Cartridge Filter		
TREA 248: Secondary Crusher L14 Cartridge Filter		
TREA 249: Secondary Crusher L15 Cartridge Filter		
TREA 250: Tertiary Crusher L18 Cartridge Filter		
TREA 251: Tertiary Crusher L21 Cartridge Filter		
TREA 252: Tertiary Crusher L19 Cartridge Filter		
TREA 253: Tertiary Crusher L20 Cartridge Filter		
TREA 254: Tertiary Crusher L22 Cartridge Filter		
TREA 255: Tertiary Crusher L23 Cartridge Filter		
TREA 256: Tertiary Crusher L28 Cartridge Filter		
TREA 257: Tertiary Crusher L24 Cartridge Filter		
TREA 258: Tertiary		

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SI ID: Description	Relationship type	Related SI ID: Description
Crusher L25 Cartridge Filter		
TREA 259: Tertiary Crusher L26 Cartridge Filter		
TREA 260: Tertiary Crusher L27 Cartridge Filter		
TREA 261: Conveyor Transfer 009-020 Cartridge Filter		
TREA 262: Conveyor Transfer 003-004 Cartridge Filter		
TREA 264: Conveyor Transfer 003 Cartridge Filter		

SI ID: Description	Relationship type	Related SI ID: Description
TREA 265: Conveyor Transfer 001-070 Bin Cartridge Filter		
TREA 266: Step I Basement Belts Cartridge Filter		
TREA 267: Secondary Crusher L5 Cartridge Filter		
TREA 268: Road dust suppression		
TREA 269: Step III Tertiary Storage 006-080 Bins Cartridge Filter		

5. Limits and other requirements

Requirement number	Requirement and citation
TFAC 2	US Steel Corp - MinnTac
5.1.1	Permit Appendices: This permit contains appendices as listed in the permit Table of Contents. The Permittee shall comply with all requirements contained in Appendices. Appendix A. Insignificant Activities List Appendix B. Fugitive Dust Control Plan Appendix C. 40 CFR Part 60, Subpart A - General Provisions Appendix D. (removed prior to permit issuance) Appendix E. 40 CFR Part 60, Subpart LL - Standards of Performance for Metallic Mineral Processing Plants Appendix F. 40 CFR Part 60, subp. OOO Appendix G. 40 CFR Part 60, Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines Appendix H. 40 CFR Part 63, Subpart A - General Provisions Appendix I. 40 CFR Part 63, Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines Appendix J. 40 CFR Part 63, Subpart RRRRR - National Emission Standards for Hazardous Air Pollutants: Taconite Iron Ore Processing Appendix K. 40 CFR Part 63, Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants: Industrial, Commercial, and Institutional Boilers and Process Heaters Appendix L. Fabric Filters Authorized for Construction Appendix M. Fugitive Source List Appendix N. Authorized Biomass in Rotary Kilns Appendix O. Presidential Proclamation on Regulatory Relief for Certain Station Sources To Promote American Iron Ore Processing Security Appendix P. Modeling Parameters for the Indurating Process Modification (Permit 13700005-004). [Minn. R. 7007.0800, subp. 2(A) & (B)]
5.1.2	The Permittee must comply with Minn. Stat. 116.385. The Permittee may not use trichloroethylene at its permitted facility including in any manufacturing, processing, or cleaning processes, except as described in Minn. Stat. 116.385, subd. 2(b) and 4. This is a state-only requirement and is not enforceable by the U.S. Environmental Protection Agency (EPA) Administrator and citizens under the Clean Air Act. [Minn. R. 7007.0100, subp. 7(X), Minn. Stat. 116.385]
5.1.3	PERMIT SHIELD: Subject to the limitations in Minn. R. 7007.1800, compliance with the conditions of this permit shall be deemed compliance with the specific provision of the applicable requirement identified in the permit as the basis of each condition. Subject to the limitations of Minn. R. 7007.1800 and 7017.0100, subp. 2, notwithstanding the conditions of this permit specifying compliance practices for applicable requirements, any person (including the Permittee) may also use other credible evidence to establish compliance or noncompliance with applicable requirements. This permit shall not alter or affect the liability of the Permittee for any violation of applicable requirements prior to or at the time of permit issuance. [Minn. R. 7007.1800(A)(2)]
5.1.4	Comply with Fugitive Emission Control Plan: The Permittee shall follow the actions and recordkeeping specified in the fugitive dust control plan in Appendix B of this permit. If the Commissioner determines the Permittee is out of compliance with Minn. R. 7011.0150 or the fugitive control plan, then the Permittee may be required to amend the control plan and/or to install and operate particulate matter ambient monitors as requested by the Commissioner. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7009.0020, Minn. R. 7011.0150, Minn. Stat. 116.07, subd. 4a(a)]

Requirement number	Requirement and citation
5.1.5	The Permittee shall comply with National Primary and Secondary Ambient Air Quality Standards, 40 CFR pt. 50, and the Minnesota Ambient Air Quality Standards, Minn. R. 7009.0010 to 7009.0090. Compliance shall be demonstrated upon written request by the MPCA. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)]
5.1.6	Circumvention: Do not install or use a device or means that conceals or dilutes emissions, which would otherwise violate a federal or state air pollution control rule, without reducing the total amount of pollutant emitted. [Minn. R. 7011.0020]
5.1.7	The Permittee must at all times properly operate and maintain the facilities and systems of treatment and control and the appurtenances related to them that are installed or used by the Permittee to achieve compliance with the conditions of the permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. [Minn. R. 7007.0800, subp. 16(J)]
5.1.8	Operation and Maintenance Plan: Retain at the stationary source an operation and maintenance plan for all air pollution control equipment. At a minimum, the O & M plan shall identify all air pollution control equipment and control practices and shall include a preventative maintenance program for the equipment and practices, a description of (the minimum but not necessarily the only) corrective actions to be taken to restore the equipment and practices to proper operation to meet applicable permit conditions, a description of the employee training program for proper operation and maintenance of the control equipment and practices, and the records kept to demonstrate plan implementation. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 16(J)]
5.1.9	Operation Changes: In any shutdown, breakdown, or deviation the Permittee must immediately or as soon as possible considering plant and personnel safety take all practical steps to modify operations to reduce the emission of any regulated air pollutant. No emissions units that have an unreasonable shutdown or breakdown frequency of process or control equipment are permitted to operate. [Minn. R. 7019.1000, subp. 4]
5.1.10	Fugitive Emissions: Do not cause or permit the handling, use, transporting, or storage of any material in a manner which may allow avoidable amounts of particulate matter to become airborne. Comply with all other requirements listed in Minn. R. 7011.0150. [Minn. R. 7011.0150]
5.1.11	Noise: The Permittee shall comply with the noise standards set forth in Minn. R. 7030.0010 to 7030.0080 at all times during the operation of any emission units. This is a state only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act. [Minn. R. 7030.0010-7030.0080]
5.1.12	Inspections: The Permittee shall comply with the inspection procedures and requirements as found in Minn. R. 7007.0800, subp. 9(A). [Minn. R. 7007.0800, subp. 9(A)]
5.1.13	The Permittee shall comply with the General Conditions listed in Minn. R. 7007.0800, subp. 16. [Minn. R. 7007.0800, subp. 16]
5.1.14	Performance Testing: Conduct all performance tests in accordance with Minn. R. ch. 7017 unless otherwise noted in this permit. [Minn. R. ch. 7017]
5.1.15	Performance Test Notifications and Submittals: Performance Test Notification and Plan: due 30 days before each Performance Test Performance Test Pre-test Meeting: due seven days before each Performance Test Performance Test Report: due 45 days after each Performance Test The Notification, Test Plan, and Test Report must be submitted in a format specified by the commissioner. [Minn. R. 7017.2017, Minn. R. 7017.2030, subps. 1-4, Minn. R. 7017.2035, subps. 1-2]

Requirement number	Requirement and citation
5.1.16	Limits set as a result of a performance test (conducted before or after permit issuance) apply until superseded as stated in the MPCA's Notice of Compliance letter granting preliminary approval. Preliminary approval is based on formal review of a subsequent performance test on the same unit as specified by Minn. R. 7017.2025, subp. 3. The limit is final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025, subp. 3]
5.1.17	Monitoring Equipment Calibration - The Permittee shall either: 1. Calibrate or replace required monitoring equipment every 12 months; or 2. Calibrate at the frequency stated in the manufacturer's specifications. For each monitor, the Permittee shall maintain a record of all calibrations, including the date conducted, and any corrective action that resulted. The Permittee shall include the calibration frequencies, procedures, and manufacturer's specifications (if applicable) in the Operations and Maintenance Plan. Any requirements applying to continuous emission monitors are listed separately in this permit. [Minn. R. 7007.0800, subp. 4(D)]
5.1.18	Operation of Monitoring Equipment: Unless noted elsewhere in this permit, monitoring a process or control equipment connected to that process is not necessary during periods when the process is shutdown, or during checks of the monitoring systems, such as calibration checks and zero and span adjustments. If monitoring records are required, they should reflect any such periods of process shutdown or checks of the monitoring system. [Minn. R. 7007.0800, subp. 4(D)]
5.1.19	Recordkeeping: Retain all records at the stationary source, unless otherwise specified within this permit, for five (5) years from the date of monitoring, sample, measurement, or report. Records which must be retained at this location include all calibration and maintenance records, all original recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Records must conform to the requirements listed in Minn. R. 7007.0800, subp. 5(A). [Minn. R. 7007.0800, subp. 5(C)]
5.1.20	Recordkeeping: Maintain records describing any insignificant modifications (as required by Minn. R. 7007.1250, subp. 3) or changes contravening permit terms (as required by Minn. R. 7007.1350, subp. 2), including records of the emissions resulting from those changes. [Minn. R. 7007.0800, subp. 5(B)]
5.1.21	If the Permittee determines that no permit amendment or notification is required prior to making a change, the Permittee must retain records of all calculations required under Minn. R. 7007.1200. For expiring permits, these records shall be kept for a period of five years from the date the change was made or until permit reissuance, whichever is longer. The records shall be kept at the stationary source for the current calendar year of operation and may be kept at the stationary source or office of the stationary source for all other years. The records may be maintained in either electronic or paper format. [Minn. R. 7007.1200, subp. 4]
5.1.22	These following 40 CFR 52.21(r)(6) requirements apply if a reasonable possibility (RP) as defined in 40 CFR 52.21(r)(6)(vi) exists that a proposed project, analyzed using the actual-to-projected-actual (ATPA) test (either by itself or as part of the hybrid test at 40 CFR 52.21(a)(2)(iv)(f)) and found to not be part of a major modification, may result in a significant emissions increase (SEI). If the ATPA test is not used for the project, or if there is no RP that the proposed project could result in a SEI, these requirements do not apply to that project. The Permittee is only subject to the Preconstruction Documentation requirement for a project where a RP occurs only within the meaning of 40 CFR 52.21(r)(6)(vi)(b). Even though a particular modification is not subject to New Source Review (NSR), or where there isn't a RP that a proposed project could result in a SEI, a permit amendment, recordkeeping, or notification may still be required by Minn. R. 7007.1150 - 7007.1500. [Minn. R. 7007.0800, subp. 2(A), Title I Condition: 40 CFR 52.21(r)(6) and Minn. R. 7007.3000]

Requirement number	Requirement and citation
5.1.23	Preconstruction Documentation -- Before beginning actual construction on a project, the Permittee shall document the following: 1. Project description 2. Identification of any emission unit whose emissions of an NSR pollutant could be affected 3. Pre-change potential emissions of any affected existing emission unit, and the projected post-change potential emissions of any affected existing or new emission unit. 4. A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including the baseline actual emissions, the projected actual emissions, the amount of emissions excluded due to increases not associated with the modification and that the emission unit could have accommodated during the baseline period, an explanation of why the amounts were excluded, and any creditable contemporaneous increases and decreases that were considered in the determination. The Permittee shall maintain records of this documentation. [Minn. R. 7007.0800, subps. 4-5, Minn. R. 7007.1200, subp. 4, Title I Condition: 40 CFR 52.21(r)(6) and Minn. R. 7007.3000]
5.1.24	The Permittee shall monitor the actual emissions of any regulated NSR pollutant that could increase as a result of the project and that were analyzed using the ATPA test, and the potential emissions of any regulated NSR pollutant that could increase as a result of the project and that were analyzed using potential emissions in the hybrid test. The Permittee shall calculate and maintain a record of the sum of the actual and potential (if the hybrid test was used in the analysis) emissions of the regulated pollutant, in tons per year on a calendar year basis, for a period of five years following resumption of regular operations after the change, or for a period of 10 years following resumption of regular operations after the change if the project increases the design capacity of or potential to emit of any unit associated with the project. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: 40 CFR 52.21(r)(6) and Minn. R. 7007.3000]
5.1.25	The Permittee must submit a report to the Agency if the annual summed (actual, plus potential if used in hybrid test) emissions differ from the preconstruction projection and exceed the baseline actual emissions by a significant amount as listed at 40 CFR 52.21(b)(23). Such report shall be submitted to the Agency within 60 days after the end of the year in which the exceedances occur. The report shall contain: a. The name and ID number of the Facility, and the name and telephone number of the Facility contact person. b. The annual emissions (actual, plus potential if any part of the project was analyzed using the hybrid test) for each pollutant for which the preconstruction projection and significant emissions increase are exceeded. c. Any other information, such as an explanation as to why the summed emissions differ from the preconstruction projection. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: 40 CFR 52.21(r)(6) and Minn. R. 7007.3000]
5.1.26	Shutdown Notifications: Notify the commissioner at least 24 hours in advance of a planned shutdown of any control equipment or process equipment if the shutdown would cause any increase in the emissions of any regulated air pollutant. If the Permittee does not have advance knowledge of the shutdown, the Permittee must notify the commissioner as soon as possible after the shutdown. However, notification is not required in the circumstances outlined in items A, B, and C of Minn. R. 7019.1000, subp. 3. At the time of notification, the owner or operator must inform the commissioner of the cause of the shutdown and the estimated duration. The owner or operator must notify the commissioner when the shutdown is over. [Minn. R. 7019.1000, subp. 3]

Requirement number	Requirement and citation
5.1.27	Breakdown Notifications: Notify the commissioner within 24 hours of a breakdown of more than one hour of any control equipment or process equipment if the breakdown causes any increase in the emissions of any regulated air pollutant. The 24-hour time period starts when the breakdown was discovered or reasonably should have been discovered by the owner or operator. However, notification is not required in the circumstances outlined in items A, B, and C of Minn. R. 7019.1000, subp. 2. At the time of notification or as soon as possible thereafter, the Permittee must inform the commissioner of the cause of the breakdown and the estimated duration. The Permittee must notify the commissioner when the breakdown is over. [Minn. R. 7019.1000, subp. 2]
5.1.28	Notification of Deviations Endangering Human Health or the Environment: Immediately after discovery of the deviation or immediately after when the deviation reasonably should have been discovered, notify the commissioner either orally or by e-mail, or telephone the state duty officer at 800-422-0798 or 651-649-5451, of any deviation from permit conditions that could endanger human health or the environment. [Minn. R. 7019.1000, subp. 1]
5.1.29	Notification of Deviations Endangering Human Health or the Environment Report: Within two working days of discovery, notify the commissioner in writing of any deviation from permit conditions that could endanger human health or the environment. Include the following information in this written description: 1. the cause of the deviation; 2. the exact dates of the period of the deviation, if the deviation has been corrected; 3. whether or not the deviation has been corrected; 4. the anticipated time by which the deviation is expected to be corrected, if not yet corrected; and 5. steps taken or planned to reduce, eliminate, and prevent reoccurrence of the deviation. [Minn. R. 7019.1000, subp. 1]
5.1.30	Relocation Notification Form: due 48 hours before change in location. Submit notification on a form approved by the Commissioner. [Minn. R. 7007.0800, subp. 12(C)]
5.1.31	Application for Permit Amendment: If a permit amendment is needed, submit an application in accordance with the requirements of Minn. R. 7007.1150 through Minn. R. 7007.1500. Submittal dates vary, depending on the type of amendment needed. Upon adoption of a new or amended federal applicable requirement, and if there are three or more years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150 - 7007.1500]
5.1.32	Extension Requests: The Permittee may apply for an Administrative Amendment to extend a deadline in a permit by no more than 120 days, provided the proposed deadline extension meets the requirements of Minn. R. 7007.1400, subp. 1(H). Performance testing deadlines from the General Provisions of 40 CFR pt. 60 and pt. 63 are examples of deadlines for which the MPCA does not have authority to grant extensions and therefore do not meet the requirements of Minn. R. 7007.1400, subp. 1(H). [Minn. R. 7007.1400, subp. 1(H)]
5.1.33	Within 15 days of a request from the Commissioner, the Permittee must provide a complete summary of all performance tests required at the facility including the subject item, pollutant, most recent test date (if applicable), and the date of the next test in an approved format. [Minn. R. 7007.0800, subp. 16(L)]
5.1.34	Emission Inventory Report: due on or before April 1 of each calendar year following permit issuance. Submit in a format specified by the Commissioner. [Minn. R. 7019.3000-7019.3100]
5.1.35	Emission Fees: due 30 days after receipt of an MPCA bill. [Minn. R. 7002.0005-7002.0085]

Requirement number	Requirement and citation
5.1.36	The Permittee must submit a Risk Management Plan (RMP) under 40 CFR pt. 68. Each owner or operator of a stationary source, at which a regulated substance is present above a threshold quantity in a process, shall design and implement an accidental release prevention program. An initial RMP must be submitted no later than the latest of the following dates: 1) June 21, 1999; 2) Three years after the date on which a regulated substance is first listed under 40 CFR 68.130; or 3) The date on which a regulated substance is first present above a threshold quantity in a process. A full update and resubmission of the RMP is required at least once every five years. The five-year anniversary date is reset whenever the Permittee fully updates and resubmits their RMP. Submit RMPs as specified by EPA as of the date of submission. [40 CFR pt. 68]
5.1.37	Mercury Emissions Reduction Plan Implementation: The Permittee must implement and comply with the mercury emissions reduction plan, as approved by the Commissioner. This is a state-only requirement and is not enforceable by the U.S. Environmental Protection Agency (EPA) Administrator and citizens under the Clean Air Act. [Minn. R. 7007.0502, Minn. R. 7007.0800, subp. 2(A)]
5.1.38	Mercury Emissions Reduction Plan Information Requests: The Permittee shall respond to MPCA information requests regarding the Permittee's submitted mercury emission reduction plan under review within the timeframe specified in the information request or within the timeframe extended in agreement with the MPCA. This is a state-only requirement and is not enforceable by the U.S. Environmental Protection Agency (EPA) Administrator and citizens under the Clean Air Act. [Minn. R. 7007.0800, subp. 16(L), Minn. R. 7007.0800, subp. 2(A)]
5.1.39	Mercury Reduction Plan Implementation Reports: The Permittee must submit annual progress reports to the commissioner by April 1 of each year starting with the year following plan approval until one full year after achievement of the reduction as described in the plan. The report must provide the status of facility modifications and actions taken in the preceding 12 months on each of the plan elements as identified in Minn. R. 7007.0502, subp. 5. This is a state-only requirement and is not enforceable by the U.S. Environmental Protection Agency (EPA) Administrator and citizens under the Clean Air Act. [Minn. R. 7007.0502, subp. 8, Minn. R. 7007.0800, subp. 16(L), Minn. R. 7007.0800, subp. 2(A)]
5.1.40	Mercury Reduction Plan Modifications: The Permittee may request modification of the approved mercury emissions reduction plan or enforceable agreement by submitting a written request to the commissioner. The request must include: (1) a description of the modification; (2) reasons for the modification; and (3) if the request is to modify the mercury reduction, the information required under Minn. R. 7007.0502, subp. 5(A)(1), for the requested new reduction. This is a state-only requirement and is not enforceable by the U.S. Environmental Protection Agency (EPA) Administrator and citizens under the Clean Air Act. [Minn. R. 7007.0502, subp. 9(A), Minn. R. 7007.0800, subp. 2(A)]
5.1.41	Mercury Reduction Plan Modifications: The Permittee may not implement any proposed plan modifications until the commissioner approves the modification, issues an amended permit, or revises an enforceable agreement, as applicable. This is a state-only requirement and is not enforceable by the U.S. Environmental Protection Agency (EPA) Administrator and citizens under the Clean Air Act. [Minn. R. 7007.0502, subp. 9(B), Minn. R. 7007.0800, subp. 2(A)]

Requirement number	Requirement and citation
COMG 37	Regional Haze and Facility-wide NOx Limits
5.2.1	Nitrogen Oxides <= 5000 pounds per hour 24-hour block average from all five waste gas stacks combined (EQUI 3, EQUI 146, EQUI 179, EQUI 279, EQUI 280; STRU 225, STRU 208, STRU 60, STRU 155, and STRU 69) at Permit Issuance. [Minn. R. 7007.3000, Title I Condition: 40 CFR 52.21(p)(visibility)]
5.2.2	Nitrogen Oxides <= 7300 tons per year 365-day rolling sum from all five waste gas stacks combined (EQUI 3, EQUI 146, EQUI 179, EQUI 279, EQUI 280; STRU 225, STRU 208, STRU 60, STRU 155, and STRU 69). [Minn. R. 7007.3000, Title I Condition: 40 CFR 52.21(p)(visibility)]
5.2.3	Nitrogen Oxides: Emissions Monitoring: The Permittee must use a CEMS to measure emissions as specified at EQUI 3, EQUI 146, EQUI 179, EQUI 279, and EQUI 280. Additional monitoring requirements are listed under the subject items COMG 73, COMG 74, COMG 75, COMG 76, and COMG 77. [40 CFR 52.1235(c)(1), Minn. R. 7007.3000, Minn. R. 7017.1006, Title I Condition: 40 CFR 52.21(p)(visibility)]
5.2.4	Nitrogen Oxides: Daily Recordkeeping: Each day, the Permittee shall calculate and record the following: 1) The NOx emissions for the previous day using CEMs data. 2) The 365-day rolling sum NOx emissions for the previous 365-day period by summing the daily NOx emissions data for the previous 365 days. [Title I Condition: 40 CFR 52.21(p)(visibility) & Minn. R. 7007.3000]
5.2.5	Nitrogen Oxides <= 1.6 pounds per million Btu 30-day rolling average. To determine the aggregate emission rate, the combined NOX emissions from lines 3, 4, 5, 6 and 7 (EQUI 3, EQUI 146, EQUI 179, EQUI 279, EQUI 280) shall be divided by the total heat input to the five lines (in MMBTU) during every rolling 30-day period. [40 CFR 52.1235(b)(1)(iii)]
5.2.6	Nitrogen Oxides: The Permittee shall calculate and record the aggregate emission rate and 30-day rolling average each day. [40 CFR 52.1235(b)(1)(iii)]
5.2.7	Sulfur Dioxide <= 498 pounds per hour 30-day rolling average when all lines EQUI 3, EQUI 146, EQUI 179, EQUI 279, and EQUI 280, are producing flux pellets. [40 CFR 52.1235(b)(2)(iii)]
5.2.8	Sulfur Dioxide <= 630 pounds per hour 30-day rolling average when EQUI 3, EQUI 146, and EQUI 179 (Lines 3-5) are producing acid pellets and EQUI 279, and EQUI 280 (Lines 6-7) are producing flux pellets. [40 CFR 52.1235(b)(2)(iii)]
5.2.9	Sulfur Dioxide <= 800 pounds per hour 30-day rolling average when all lines EQUI 3, EQUI 146, EQUI 179, EQUI 279, and EQUI 280, are producing acid pellets. [40 CFR 52.1235(b)(2)(iii)]
5.2.10	Sulfur Dioxide: The permittee shall calculate compliance with the Sulfur Dioxide emission limits above using a weighted average as follows: $(L_{30}) = (498 \cdot (n_f) + 630 \cdot (n_{af}) + 800 \cdot (n_a)) / 30$ where: (L ₃₀) = the limit for a given 30-day averaging period; (n _f) = the number of days in the 30 day period that the facility is producing flux pellets on lines 3-7; (n _{af}) = the number of days in the 30 day period that the facility is producing acid pellets on lines 3-5 and flux pellets on lines 6 and 7; and (n _a) = the number of days in the 30 day period that the facility is producing acid pellets on lines 3-7. [40 CFR 52.1235(b)(2)(iii)]
5.2.11	Sulfur Dioxide: Emissions Monitoring: The Permittee must use a CEMS to measure emissions as specified at EQUI 3, EQUI 146, EQUI 179, EQUI 279, and EQUI 280. Additional monitoring requirements are listed under the subject items COMG 73, COMG 74, COMG 75, COMG 76, and COMG 77. [40 CFR 52.1235(c)(2), Minn. R. 7017.1006]

Requirement number	Requirement and citation
5.2.12	The Permittee must limit Sulfur Content of Fuel <= 0.60 percent by weight 30-day block average for any coal burned. [40 CFR 52.1235(b)(2)(iii)]
5.2.13	The Permittee must comply with all applicable recordkeeping requirements in 40 CFR 52.1235(d). [40 CFR 52.1235(d)]
5.2.14	The Permittee must comply with all applicable recordkeeping requirements in 40 CFR 52.1235(e). [40 CFR 52.1235(e)]
COMG 38	Line 6 and 7 Combined Limits
5.3.1	Volatile Organic Compounds <= 35 tons per year 12-month rolling sum for the combustion of wood waste (wood, wood bark, and sawdust) at Lines 6 and 7 combined. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2)]
5.3.2	Carbon Monoxide <= 90 tons per year 12-month rolling sum for the combustion of wood waste (wood, wood bark, and sawdust) at Lines 6 and 7 combined. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2)]
5.3.3	Wood waste: Daily Recordkeeping. On each day of operation, the Permittee must calculate, record, and maintain a record of the total weight of wood waste combusted in COMG 38 units. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
5.3.4	VOCs: Monthly Recordkeeping. By the 15th of the month, the Permittee must calculate and record the following using the formulas specified in this permit: 1) The total wood waste burned in COMG 38 units in the previous calendar month using the daily usage records. 2) The total VOC emissions for the previous month using the formulas specified in this permit; and 3) The 12-month rolling sum total VOC emissions for the previous 12-month period by summing the monthly emissions data for the previous 12 months. [Minn. R. 7007.0800, subps. 4-5]
5.3.5	VOC: Monthly Calculation. The Permittee must calculate COMG 38 VOC emissions using the following equation: $\text{VOC Emissions (tons/month)} = Q \times H \times F / 1,000,000$ Where: Q = Amount of wood waste used in the previous month, in lb/month. H = Heating value of wood waste used in the previous month, based on the most recent quarterly fuel sample, in BTU/lb. F = Emission factor of wood waste from the most recent MPCA-approved performance test, in lb VOC/MMBtu. At the time of permit issuance, the VOC emission factor is 0.0075 lb/MMBtu. [Minn. R. 7007.0800, subps. 4-5]
5.3.6	CO: Monthly Recordkeeping. By the 15th of the month, the Permittee must calculate and record the following using the formulas specified in this permit: 1) The total wood waste burned in COMG 38 units in the previous calendar month using the daily usage records. 2) The total CO emissions for the previous month using the formulas specified in this permit; and 3) The 12-month rolling sum total CO emissions for the previous 12-month period by summing the monthly emissions data for the previous 12 months. [Minn. R. 7007.0800, subps. 4-5]
5.3.7	CO: Monthly Calculation. The Permittee must calculate COMG 38 CO emissions using the following equation: $\text{CO Emissions (tons/month)} = Q \times H \times F / 1,000,000$ Where: Q = Amount of wood waste used in the previous month, in lb/month. H = Heating value of wood waste used in the previous month, based on the most recent quarterly fuel sample, in BTU/lb.

Requirement number	Requirement and citation
	F = Emission factor of wood waste from the most recent MPCA-approved performance test, in lb CO/MMBtu. At the time of permit issuance, the CO emission factor is 0.091 lb/MMBtu. [Minn. R. 7007.0800, subps. 4-5]
5.3.8	Heating Value of Wood Waste Fuel: A representative wood waste fuel sample must be collected and analyzed for heating value (BTU/lb) once each calendar quarter. [Minn. R. 7007.0800, subps. 4-5]
COMG 39	Taconite MACT Existing Ore Crushing and Handling
5.4.1	The Permittee must limit Filterable Particulate Matter ≤ 0.008 grains per dry standard cubic foot 3-hour average measured as a flow-weighted mean concentration for all ore crushing and handling emission units in this group. The Permittee must determine the flow-weighted mean concentration of filterable particulate matter emissions following the procedures in 40 CFR 63.9621(b). [40 CFR 63.9590(a), 40 CFR 63.9621(b), 40 CFR 63.9634(b)(1), 40 CFR pt. 63, subp. RRRRR (Table 1)(Item 1)Existing, Minn. R. 7011.8030]
5.4.2	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9581; 40 CFR 63.9582(a)-(d); 40 CFR 63.9583(a) & (e); 40 CFR 63.9590(a); 40 CFR 63.9600(a); 40 CFR 63.9610(a) & (c); 40 CFR 63.9621(a) & (b); 40 CFR 63.9630(a); 40 CFR 63.9633; 40 CFR 63.9634(a) & (b); 40 CFR 63.9637; 40 CFR 63.9640(a) & (d); 40 CFR 63.9641(a)-(h); 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; 40 CFR 63.9650; 40 CFR 63.9652; 40 CFR pt. 63, subp. RRRRR, Table 1, Item 1 (Existing); and 40 CFR pt. 63, subp. RRRRR, Table 2, as specified elsewhere in this permit. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.4.3	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. A as follows: 40 CFR 63.1(a); 40 CFR 63.1(b)(1) & (3); 40 CFR 63.1(c)(1)-(2) & (6); 40 CFR 63.2; 40 CFR 63.3; 40 CFR 63.4(a)-(c);

Requirement number	Requirement and citation
	40 CFR 63.5(a)-(b) & (d)-(f); 40 CFR 63.6(a)(1); 40 CFR 63.6(b)(1)-(5); 40 CFR 63.6(c)(1)-(2); 40 CFR 63.6(e)(1)(iii); 40 CFR 63.6(f)(2)-(3); 40 CFR 63.6(g); 40 CFR 63.6(i)(1)-(14) & (16); 40 CFR 63.6(j); 40 CFR 63.7(a)(3) & (4); 40 CFR 63.7(b)-(d); 40 CFR 63.7(e)(2)-(4); 40 CFR 63.7(f)-(h); 40 CFR 63.8(b); 40 CFR 63.8(c)(1)(ii); 40 CFR 63.8(c)(2), (3), & (5)-(8); 40 CFR 63.8(d)(1)-(2); 40 CFR 63.8(e); 40 CFR 63.8(f)(1)-(5); 40 CFR 63.8(g)(1)-(4); 40 CFR 63.9; 40 CFR 63.10(a)(5)-(7); 40 CFR 63.10(b)(1); 40 CFR 63.10(b)(2)(iii), (vi)-(xii), & (xiv); 40 CFR 63.10(b)(3); 40 CFR 63.10(c)(1)-(6) & (10)-(14); 40 CFR 63.10(d)(1)-(2) & (4); 40 CFR 63.10(e)(2) & (3); 40 CFR 63.10(f); 40 CFR 63.12; 40 CFR 63.13; 40 CFR 63.14; and 40 CFR 63.15. A copy of 40 CFR pt. 63, subp. A is included in Appendix H. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. A, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.0050, subp. 1(B), Minn. R. 7017.1010 & 7017.2025, Minn. R. 7019.0100]
COMG 40	Taconite MACT Existing Finished Pellet Handling
5.5.1	The Permittee must limit Filterable Particulate Matter <= 0.008 grains per dry standard cubic foot 3-hour average measured as a flow-weighted mean concentration for all finished pellet handling emission units in this group. The Permittee must determine the flow-weighted mean concentration of front-half particulate matter emissions following the procedures in 40 CFR Section 63.9621(b). [40 CFR 63.9590(a), 40 CFR 63.9621(b), 40 CFR 63.9634(b)(1), 40 CFR pt. 63, subp. RRRRR (Table 1)(Item 5)Existing, Minn. R. 7011.8030]
5.5.2	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows:

Requirement number	Requirement and citation
	40 CFR 63.9581; 40 CFR 63.9582(a)-(d); 40 CFR 63.9583(a) & (e); 40 CFR 63.9590(a); 40 CFR 63.9600(a); 40 CFR 63.9610(a) & (c); 40 CFR 63.9621(a) & (b); 40 CFR 63.9630(c); 40 CFR 63.9633; 40 CFR 63.9634(a) & (b); 40 CFR 63.9637; 40 CFR 63.9640(a) & (d); 40 CFR 63.9641(a)-(h); 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; 40 CFR 63.9650; 40 CFR 63.9652; 40 CFR pt. 63, subp. RRRRR, Table 1, Item 5 (Existing); and 40 CFR pt. 63, subp. RRRRR, Table 2, as specified elsewhere in this permit. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.5.3	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. A as follows: 40 CFR 63.1(a); 40 CFR 63.1(b)(1) & (3); 40 CFR 63.1(c)(1)-(2) & (6); 40 CFR 63.2; 40 CFR 63.3; 40 CFR 63.4(a)-(c); 40 CFR 63.5(a)-(b) & (d)-(f); 40 CFR 63.6(a)(1); 40 CFR 63.6(b)(1)-(5); 40 CFR 63.6(c)(1)-(2); 40 CFR 63.6(e)(1)(iii); 40 CFR 63.6(f)(2)-(3); 40 CFR 63.6(g); 40 CFR 63.6(i)(1)-(14) & (16); 40 CFR 63.6(j); 40 CFR 63.7(a)(3) & (4); 40 CFR 63.7(b)-(d); 40 CFR 63.7(e)(2)-(4); 40 CFR 63.7(f)-(h); 40 CFR 63.8(b); 40 CFR 63.8(c)(1)(ii); 40 CFR 63.8(c)(2), (3), & (5)-(8);

Requirement number	Requirement and citation
	40 CFR 63.8(d)(1)-(2); 40 CFR 63.8(e); 40 CFR 63.8(f)(1)-(5); 40 CFR 63.8(g)(1)-(4); 40 CFR 63.9; 40 CFR 63.10(a)(5)-(7); 40 CFR 63.10(b)(1); 40 CFR 63.10(b)(2)(iii), (vi)-(xii), & (xiv); 40 CFR 63.10(b)(3); 40 CFR 63.10(c)(1)-(6) & (10)-(14); 40 CFR 63.10(d)(1)-(2) & (4); 40 CFR 63.10(e)(2) & (3); 40 CFR 63.10(f); 40 CFR 63.12; 40 CFR 63.13; 40 CFR 63.14; and 40 CFR 63.15. A copy of 40 CFR pt. 63, subp. A is included in Appendix H. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. A, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.0050, subp. 1(B), Minn. R. 7017.1010 & 7017.2025, Minn. R. 7019.0100]
COMG 41	Taconite MACT fugitive sources
5.6.1	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9581; 40 CFR 63.9582(c); 40 CFR 63.9583(a) & (e); 40 CFR 63.9591(a) & (d); 40 CFR 63.9600(a); 40 CFR 63.9610(a) & (c); 40 CFR 63.9635; 40 CFR 63.9637; 40 CFR 63.9640(a); 40 CFR 63.9641(a)-(d), (g), & (h); 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; 40 CFR 63.9650; 40 CFR 63.9652; and 40 CFR pt. 63, subp. RRRRR, Table 2, as specified elsewhere in this permit. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]

Requirement number	Requirement and citation
5.6.2	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. A as follows: 40 CFR 63.1(a); 40 CFR 63.1(b)(1) & (3); 40 CFR 63.1(c)(1)-(2) & (6); 40 CFR 63.2; 40 CFR 63.3; 40 CFR 63.4(a)-(c); 40 CFR 63.5(a)-(b) & (d)-(f); 40 CFR 63.6(a)(1); 40 CFR 63.6(b)(1)-(5); 40 CFR 63.6(c)(1)-(2); 40 CFR 63.6(e)(1)(iii); 40 CFR 63.6(f)(2)-(3); 40 CFR 63.6(g); 40 CFR 63.6(i)(1)-(14) & (16); 40 CFR 63.6(j); 40 CFR 63.7(a)(3) & (4); 40 CFR 63.7(b)-(d); 40 CFR 63.7(e)(2)-(4); 40 CFR 63.7(f)-(h); 40 CFR 63.8(b); 40 CFR 63.8(c)(1)(ii); 40 CFR 63.8(c)(2), (3), & (5)-(8); 40 CFR 63.8(d)(1)-(2); 40 CFR 63.8(e); 40 CFR 63.8(f)(1)-(5); 40 CFR 63.8(g)(1)-(4); 40 CFR 63.9; 40 CFR 63.10(a)(5)-(7); 40 CFR 63.10(b)(1); 40 CFR 63.10(b)(2)(iii), (vi)-(xii), & (xiv); 40 CFR 63.10(b)(3); 40 CFR 63.10(c)(1)-(6) & (10)-(14); 40 CFR 63.10(d)(1)-(2) & (4); 40 CFR 63.10(e)(2) & (3); 40 CFR 63.10(f); 40 CFR 63.12; 40 CFR 63.13; 40 CFR 63.14; and 40 CFR 63.15. A copy of 40 CFR pt. 63, subp. A is included in Appendix H. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. A, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.0050, subp. 1(B), Minn. R. 7017.1010 & 7017.2025, Minn. R. 7019.0100]

Requirement number	Requirement and citation
COMG 73	Line 3 CEMS
5.7.1	Nitrogen Oxides: Emissions Monitoring: The owner or operator shall use a CEMS to measure emissions from EQUI 146. The CEMS must meet the requirements of 40 CFR 52.1235(c)(4)(i) through (xiv), as applicable. [40 CFR 52.1235(c)(1), 40 CFR 52.1235(c)(4), Minn. R. 7017.1006]
5.7.2	Sulfur Dioxide: Emissions Monitoring: The owner or operator shall use a CEMS to measure emissions from EQUI 146. The CEMS must meet the requirements of 40 CFR 52.1235(c)(4)(i) through (xiv), as applicable. [40 CFR 52.1235(c)(2), 40 CFR 52.1235(c)(4), Minn. R. 7017.1006]
5.7.3	Flue Gas Flow: Emissions Monitoring: The owner or operator shall use a flow gas monitor to measure flue gas flow rate for determining the quantity of emissions from concentration measurements of SO₂ and NO_x from EQUI 146. The CEMS must meet the requirements of 40 CFR 52.1235(c)(4)(i) through (xiv), as applicable. [40 CFR 52.1235(c)(3), 40 CFR 52.1235(c)(4), Minn. R. 7017.1006]
5.7.4	Continuous Operation: CEMS must be operated and data recorded during all periods of emission unit operation including periods of emission unit start-up, shutdown, or malfunction except for periods of acceptable monitor downtime. This requirement applies whether or not a numerical emission limit applies during these periods. A CEMS must not be bypassed except in emergencies where failure to bypass would endanger human health, safety, or plant equipment. [Minn. R. 7017.1090]
5.7.5	Monitoring Data: All data points collected by a CEMS shall be used to calculate individual hourly emission averages unless another applicable requirement requires more frequent averaging. Each hourly average starts at the beginning of the hour and ends at the beginning of the following hour. In order for an hour of data to be considered valid, it must contain the following minimum number of data points: A. four data points, equally spaced, if the emission unit operated during the entire hour; B. two data points, at least 15 minutes apart, during periods of monitor calibration or routine maintenance; C. one data point if the emission unit operated for 15 minutes or less during the hour. Monitoring data shall be recorded in the same units of measurement and averaging period as the facility's emission standard. [Minn. R. 7017.1160]
5.7.6	QA Plan: Develop and implement a written quality assurance plan that covers each CEMS. The plan must be on site and available for inspection within 30 days after monitor certification. The plan must include the manufacturer's spare parts list for each CEMS and require that those parts be kept at the facility unless the Commissioner gives written approval to exclude specific spare parts from the list. [Minn. R. 7017.1170, subp. 2]
5.7.7	CEMS Daily Calibration Drift (CD) Test: The CD must be quantified and recorded at zero (low-level) and upscale (high-level) gas concentrations at least once daily according to the procedures listed in Minn. R. 7017.1170, subp. 3(A) and (B), 40 CFR 60.13(d)(1) or 40 CFR pt. 75, Appendix B as applicable for each pollutant concentration, each diluent monitor, and for each monitor range. If no span value is specified in the applicable requirement or in a compliance document, the Permittee must use a span value equivalent to 1.5 times the emission limit. [Minn. R. 7017.1170, subp. 3]
5.7.8	Relative Accuracy Test Audit (RATA) Notification: due 30 days before CEMS Relative Accuracy Test Audit (RATA). [Minn. R. 7017.1180, subp. 2]
5.7.9	Recordkeeping: The owner or operator must retain records of all CEMS monitoring data and support

Requirement number	Requirement and citation
	information for a period of five years from the date of the monitoring sample, measurement or report. Records shall be kept at the source. [Minn. R. 7017.1130]
COMG 74	Line 4 CEMS
5.8.1	Nitrogen Oxides: Emissions Monitoring: The owner or operator shall use a CEMS to measure emissions from EQUI 279. The CEMS must meet the requirements of 40 CFR 52.1235(c)(4)(i) through (xiv), as applicable. [40 CFR 52.1235(c)(1), 40 CFR 52.1235(c)(4), Minn. R. 7017.1006]
5.8.2	Sulfur Dioxide: Emissions Monitoring: The owner or operator shall use a CEMS to measure emissions from EQUI 279. The CEMS must meet the requirements of 40 CFR 52.1235(c)(4)(i) through (xiv), as applicable. [40 CFR 52.1235(c)(2), 40 CFR 52.1235(c)(4), Minn. R. 7017.1006]
5.8.3	Flue Gas Flow: Emissions Monitoring: The owner or operator shall use a flow gas monitor to measure flue gas flow rate for determining the quantity of emissions from concentration measurements of SO₂ and NO_x from EQUI 279. The CEMS must meet the requirements of 40 CFR 52.1235(c)(4)(i) through (xiv), as applicable. [40 CFR 52.1235(c)(3), 40 CFR 52.1235(c)(4), Minn. R. 7017.1006]
5.8.4	Continuous Operation: CEMS must be operated and data recorded during all periods of emission unit operation including periods of emission unit start-up, shutdown, or malfunction except for periods of acceptable monitor downtime. This requirement applies whether or not a numerical emission limit applies during these periods. A CEMS must not be bypassed except in emergencies where failure to bypass would endanger human health, safety, or plant equipment. [Minn. R. 7017.1090]
5.8.5	Monitoring Data: All data points collected by a CEMS shall be used to calculate individual hourly emission averages unless another applicable requirement requires more frequent averaging. Each hourly average starts at the beginning of the hour and ends at the beginning of the following hour. In order for an hour of data to be considered valid, it must contain the following minimum number of data points: A. four data points, equally spaced, if the emission unit operated during the entire hour; B. two data points, at least 15 minutes apart, during periods of monitor calibration or routine maintenance; C. one data point if the emission unit operated for 15 minutes or less during the hour. Monitoring data shall be recorded in the same units of measurement and averaging period as the facility's emission standard. [Minn. R. 7017.1160]
5.8.6	QA Plan: Develop and implement a written quality assurance plan that covers each CEMS. The plan must be on site and available for inspection within 30 days after monitor certification. The plan must include the manufacturer's spare parts list for each CEMS and require that those parts be kept at the facility unless the Commissioner gives written approval to exclude specific spare parts from the list. [Minn. R. 7017.1170, subp. 2]
5.8.7	CEMS Daily Calibration Drift (CD) Test: The CD must be quantified and recorded at zero (low-level) and upscale (high-level) gas concentrations at least once daily according to the procedures listed in Minn. R. 7017.1170, subp. 3(A) and (B), 40 CFR 60.13(d)(1) or 40 CFR pt. 75, Appendix B as applicable for each pollutant concentration, each diluent monitor, and for each monitor range. If no span value is specified in the applicable requirement or in a compliance document, the Permittee must use a span value equivalent to 1.5 times the emission limit. [Minn. R. 7017.1170, subp. 3]

Requirement number	Requirement and citation
5.8.8	Relative Accuracy Test Audit (RATA) Notification: due 30 days before CEMS Relative Accuracy Test Audit (RATA). [Minn. R. 7017.1180, subp. 2]
5.8.9	Recordkeeping: The owner or operator must retain records of all CEMS monitoring data and support information for a period of five years from the date of the monitoring sample, measurement or report. Records shall be kept at the source. [Minn. R. 7017.1130]
COMG 75	Line 5 CEMS
5.9.1	Nitrogen Oxides: Emissions Monitoring: The owner or operator shall use a CEMS to measure emissions from EQUI 280. The CEMS must meet the requirements of 40 CFR 52.1235(c)(4)(i) through (xiv), as applicable. [40 CFR 52.1235(c)(1), 40 CFR 52.1235(c)(4), Minn. R. 7017.1006]
5.9.2	Sulfur Dioxide: Emissions Monitoring: The owner or operator shall use a CEMS to measure emissions from EQUI 280. The CEMS must meet the requirements of 40 CFR 52.1235(c)(4)(i) through (xiv), as applicable. [40 CFR 52.1235(c)(2), 40 CFR 52.1235(c)(4), Minn. R. 7017.1006]
5.9.3	Flue Gas Flow: Emissions Monitoring: The owner or operator shall use a flow gas monitor to measure flue gas flow rate for determining the quantity of emissions from concentration measurements of SO₂ and NO_x from EQUI 280. The CEMS must meet the requirements of 40 CFR 52.1235(c)(4)(i) through (xiv), as applicable. [40 CFR 52.1235(c)(3), 40 CFR 52.1235(c)(4), Minn. R. 7017.1006]
5.9.4	Continuous Operation: CEMS must be operated and data recorded during all periods of emission unit operation including periods of emission unit start-up, shutdown, or malfunction except for periods of acceptable monitor downtime. This requirement applies whether or not a numerical emission limit applies during these periods. A CEMS must not be bypassed except in emergencies where failure to bypass would endanger human health, safety, or plant equipment. [Minn. R. 7017.1090]
5.9.5	Monitoring Data: All data points collected by a CEMS shall be used to calculate individual hourly emission averages unless another applicable requirement requires more frequent averaging. Each hourly average starts at the beginning of the hour and ends at the beginning of the following hour. In order for an hour of data to be considered valid, it must contain the following minimum number of data points: A. four data points, equally spaced, if the emission unit operated during the entire hour; B. two data points, at least 15 minutes apart, during periods of monitor calibration or routine maintenance; C. one data point if the emission unit operated for 15 minutes or less during the hour. Monitoring data shall be recorded in the same units of measurement and averaging period as the facility's emission standard. [Minn. R. 7017.1160]
5.9.6	QA Plan: Develop and implement a written quality assurance plan that covers each CEMS. The plan must be on site and available for inspection within 30 days after monitor certification. The plan must include the manufacturer's spare parts list for each CEMS and require that those parts be kept at the facility unless the Commissioner gives written approval to exclude specific spare parts from the list. [Minn. R. 7017.1170, subp. 2]
5.9.7	CEMS Daily Calibration Drift (CD) Test: The CD must be quantified and recorded at zero (low-level) and upscale (high-level) gas concentrations at least once daily according to the procedures listed in Minn. R. 7017.1170, subp. 3(A) and (B), 40 CFR 60.13(d)(1) or 40 CFR pt. 75, Appendix B as applicable for each pollutant concentration, each diluent monitor, and for each monitor range.

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	If no span value is specified in the applicable requirement or in a compliance document, the Permittee must use a span value equivalent to 1.5 times the emission limit. [Minn. R. 7017.1170, subp. 3]
5.9.8	Relative Accuracy Test Audit (RATA) Notification: due 30 days before CEMS Relative Accuracy Test Audit (RATA). [Minn. R. 7017.1180, subp. 2]
5.9.9	Recordkeeping: The owner or operator must retain records of all CEMS monitoring data and support information for a period of five years from the date of the monitoring sample, measurement or report. Records shall be kept at the source. [Minn. R. 7017.1130]
COMG 76	Line 6 CEMS
5.10.1	Nitrogen Oxides: Emissions Monitoring: The owner or operator shall use a CEMS to measure emissions from EQUI 3. The CEMS must meet the requirements of 40 CFR 52.1235(c)(4)(i) through (xiv), as applicable. [40 CFR 52.1235(c)(1), 40 CFR 52.1235(c)(4), Minn. R. 7017.1006]
5.10.2	Sulfur Dioxide: Emissions Monitoring: The owner or operator shall use a CEMS to measure emissions from EQUI 3. The CEMS must meet the requirements of 40 CFR 52.1235(c)(4)(i) through (xiv), as applicable. [40 CFR 52.1235(c)(2), 40 CFR 52.1235(c)(4), Minn. R. 7017.1006]
5.10.3	Flue Gas Flow: Emissions Monitoring: The owner or operator shall use a flow gas monitor to measure flue gas flow rate for determining the quantity of emissions from concentration measurements of SO ₂ and NO _x from EQUI 3. The CEMS must meet the requirements of 40 CFR 52.1235(c)(4)(i) through (xiv), as applicable. [40 CFR 52.1235(c)(3), 40 CFR 52.1235(c)(4), Minn. R. 7017.1006]
5.10.4	Continuous Operation: CEMS must be operated and data recorded during all periods of emission unit operation including periods of emission unit start-up, shutdown, or malfunction except for periods of acceptable monitor downtime. This requirement applies whether or not a numerical emission limit applies during these periods. A CEMS must not be bypassed except in emergencies where failure to bypass would endanger human health, safety, or plant equipment. [Minn. R. 7017.1090]
5.10.5	Monitoring Data: All data points collected by a CEMS shall be used to calculate individual hourly emission averages unless another applicable requirement requires more frequent averaging. Each hourly average starts at the beginning of the hour and ends at the beginning of the following hour. In order for an hour of data to be considered valid, it must contain the following minimum number of data points: A. four data points, equally spaced, if the emission unit operated during the entire hour; B. two data points, at least 15 minutes apart, during periods of monitor calibration or routine maintenance; C. one data point if the emission unit operated for 15 minutes or less during the hour. Monitoring data shall be recorded in the same units of measurement and averaging period as the facility's emission standard. [Minn. R. 7017.1160]
5.10.6	QA Plan: Develop and implement a written quality assurance plan that covers each CEMS. The plan must be on site and available for inspection within 30 days after monitor certification. The plan must include the manufacturer's spare parts list for each CEMS and require that those parts be kept at the facility unless the Commissioner gives written approval to exclude specific spare parts from the list. [Minn. R. 7017.1170, subp. 2]

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5.10.7	CEMS Daily Calibration Drift (CD) Test: The CD must be quantified and recorded at zero (low-level) and upscale (high-level) gas concentrations at least once daily according to the procedures listed in Minn. R. 7017.1170, subp. 3(A) and (B), 40 CFR 60.13(d)(1) or 40 CFR pt. 75, Appendix B as applicable for each pollutant concentration, each diluent monitor, and for each monitor range. If no span value is specified in the applicable requirement or in a compliance document, the Permittee must use a span value equivalent to 1.5 times the emission limit. [Minn. R. 7017.1170, subp. 3]
5.10.8	Relative Accuracy Test Audit (RATA) Notification: due 30 days before CEMS Relative Accuracy Test Audit (RATA). [Minn. R. 7017.1180, subp. 2]
5.10.9	Recordkeeping: The owner or operator must retain records of all CEMS monitoring data and support information for a period of five years from the date of the monitoring sample, measurement or report. Records shall be kept at the source. [Minn. R. 7017.1130]
COMG 77	Line 7 CEMS
5.11.1	Nitrogen Oxides: Emissions Monitoring: The owner or operator shall use a CEMS to measure emissions from EQUI 179. The CEMS must meet the requirements of 40 CFR 52.1235(c)(4)(i) through (xiv), as applicable. [40 CFR 52.1235(c)(1), 40 CFR 52.1235(c)(4), Minn. R. 7017.1006]
5.11.2	Sulfur Dioxide: Emissions Monitoring: The owner or operator shall use a CEMS to measure emissions from EQUI 179. The CEMS must meet the requirements of 40 CFR 52.1235(c)(4)(i) through (xiv), as applicable. [40 CFR 52.1235(c)(2), 40 CFR 52.1235(c)(4), Minn. R. 7017.1006]
5.11.3	Flue Gas Flow: Emissions Monitoring: The owner or operator shall use a flow gas monitor to measure flue gas flow rate for determining the quantity of emissions from concentration measurements of SO ₂ and NO _x from EQUI 179. The CEMS must meet the requirements of 40 CFR 52.1235(c)(4)(i) through (xiv), as applicable. [40 CFR 52.1235(c)(3), 40 CFR 52.1235(c)(4), Minn. R. 7017.1006]
5.11.4	Continuous Operation: CEMS must be operated and data recorded during all periods of emission unit operation including periods of emission unit start-up, shutdown, or malfunction except for periods of acceptable monitor downtime. This requirement applies whether or not a numerical emission limit applies during these periods. A CEMS must not be bypassed except in emergencies where failure to bypass would endanger human health, safety, or plant equipment. [Minn. R. 7017.1090]
5.11.5	Monitoring Data: All data points collected by a CEMS shall be used to calculate individual hourly emission averages unless another applicable requirement requires more frequent averaging. Each hourly average starts at the beginning of the hour and ends at the beginning of the following hour. In order for an hour of data to be considered valid, it must contain the following minimum number of data points: A. four data points, equally spaced, if the emission unit operated during the entire hour; B. two data points, at least 15 minutes apart, during periods of monitor calibration or routine maintenance; C. one data point if the emission unit operated for 15 minutes or less during the hour. Monitoring data shall be recorded in the same units of measurement and averaging period as the facility's emission standard. [Minn. R. 7017.1160]
5.11.6	QA Plan: Develop and implement a written quality assurance plan that covers each CEMS. The plan must be on site and available for inspection within 30 days after monitor certification. The plan must include the manufacturer's spare parts list for each CEMS and require that those parts be kept at the

Requirement number	Requirement and citation
	facility unless the Commissioner gives written approval to exclude specific spare parts from the list. [Minn. R. 7017.1170, subp. 2]
5.11.7	CEMS Daily Calibration Drift (CD) Test: The CD must be quantified and recorded at zero (low-level) and upscale (high-level) gas concentrations at least once daily according to the procedures listed in Minn. R. 7017.1170, subp. 3(A) and (B), 40 CFR 60.13(d)(1) or 40 CFR pt. 75, Appendix B as applicable for each pollutant concentration, each diluent monitor, and for each monitor range. If no span value is specified in the applicable requirement or in a compliance document, the Permittee must use a span value equivalent to 1.5 times the emission limit. [Minn. R. 7017.1170, subp. 3]
5.11.8	Relative Accuracy Test Audit (RATA) Notification: due 30 days before CEMS Relative Accuracy Test Audit (RATA). [Minn. R. 7017.1180, subp. 2]
5.11.9	Recordkeeping: The owner or operator must retain records of all CEMS monitoring data and support information for a period of five years from the date of the monitoring sample, measurement or report. Records shall be kept at the source. [Minn. R. 7017.1130]
EQUI 3	L6 Rotary Kiln
5.12.1	The Permittee shall vent emissions from EQUI 3 to control equipment meeting the requirements of TREA 143 whenever EQUI 3 operates. [Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
5.12.2	Fuel Restrictions: The Permittee shall combust at the kiln burner natural gas, coal, fuel oil, and/or types of biomass that are specified in Appendix N of this permit; and at the preheat burners natural gas. Other fuels, as allowed under 40 CFR Part 241, may be combusted for a short period of time during a trial burn as specified and approved by a major amendment to this permit. [Minn. R. 7007.0800, subp. 2, Title I Condition: 40 CFR 52.21(j)(BACT) and Minn. R. 7007.3000]
5.12.3	Fluorides <= 1.62 pounds per hour 3-hour average. [Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
5.12.4	Carbon Monoxide <= 74.0 pounds per hour 3-hour average. [Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
5.12.5	Volatile Organic Compounds <= 54.3 pounds per hour 3-hour average. [Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
5.12.6	Opacity <= 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity. [Minn. R. 7011.0610, subp. 1(A)(2)]
5.12.7	Sulfur Dioxide <= 4.0 pounds per million Btu heat input when burning solid fossil fuels or 2.0 pounds per million Btu heat input when burning liquid fuels. If more than one fuel is burned simultaneously, calculate the emission limit as indicated in Minn. R. 7011.0605. [Minn. R. 7011.0610, subp. 2]
5.12.8	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0610, subp. 1(A)(1)]
5.12.9	The Permittee shall keep records of fuel purchases showing fuel types. [Minn. R. 7007.0800, subp. 5]
5.12.10	Temperature >= 1400 degrees Fahrenheit 3-hour rolling average monitored at the kiln exit. This limit does not apply during EQUI 3 startup or shutdown. If the 3-hour rolling average operating temperature is below the minimum temperature limit, this must be reported as a deviation. [Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
5.12.11	Kiln exit temperature continuous monitoring. The Permittee must install, maintain, and operate at all times a temperature monitoring device(s) at the kiln exit. A minimum of one thermocouple shall be installed at the kiln exit. Each temperature monitoring device shall be certified by the manufacturer to have an accuracy of +/-5% over its operating range. The temperature monitoring device shall be operated continuously, and data recorded during all periods of operation. Continuously is defined as determining at least one data point in each 15-minute time interval. [Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]

Requirement number	Requirement and citation
5.12.12	The Permittee must maintain a continuous hard copy readout or computer disk file of the temperature readings and calculated 3-hour rolling average temperature at the kiln exit. [Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
5.12.13	Burner and grate inspections. The Permittee must inspect the kiln and grate burners every 18 months. Each inspection must be conducted no more than 18 months after the previous inspection. The inspection must verify at a minimum: -proper alignment of kiln burners and grate burners; and -good operating condition of combustion air fans for the kiln burners and grate burners. The Permittee must keep a written record of the inspection and any action resulting from the inspection. [Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
5.12.14	The Permittee must limit Filterable Particulate Matter ≤ 0.01 grains per dry standard cubic foot 3-hour average measured as a flow-weighted mean concentration for all stacks from the indurating furnace. The Permittee must determine the flow-weighted mean concentration of front-half particulate matter emissions following the procedures in 40 CFR Section 63.9621(c). [40 CFR 63.9590(a), 40 CFR 63.9621(c), 40 CFR 63.9634(c)(1), 40 CFR pt. 63, subp. RRRRR (Table 1)(Item 3)Existing, Minn. R. 7011.8030]
5.12.15	The Permittee must limit Mercury ≤ 0.000014 pound per long ton of pellets produced by March 8, 2027. Under authority provided in Section 112(i)(4) of the Clean Air Act (42 U.S.C. 7412(i)(4)) and according to Proclamation 10958 of July 17, 2025, the Permittee is exempt from compliance with the May 6, 2024, amendments to 40 CFR pt. 63, subp. RRRRR (89 FR 16408) (Taconite MACT amendments) for a period of two years beyond the Taconite MACT amendments' relevant compliance dates. This exemption applies to all compliance deadlines established under the Taconite MACT amendments, with each such deadline extended by two years from the date originally required for such deadline. The effect of this exemption is that, during each such 2-year period, the Permittee is subject to the emissions and compliance obligations that they are currently subject to under 40 CFR pt. 63, subp. RRRRR as that standard existed prior to the Taconite MACT amendments. A copy of the presidential proclamation, as published in the Federal Register on July 23, 2025 (90 FR 34743), is included in Appendix O. [40 CFR 63.4(a)(1), 40 CFR 63.6(a)(1)(ii), 40 CFR 63.6(j), 40 CFR 63.9583(f)(1), 40 CFR 63.9590(a), 40 CFR pt. 63, subp. RRRRR(Table 2)(Item 1), Minn. R. 7011.0050, subp. 1(B), Minn. R. 7011.8030]
5.12.16	The Permittee must limit Hydrogen Chloride ≤ 0.046 pound per long ton of pellets produced by March 8, 2027. Under authority provided in Section 112(i)(4) of the Clean Air Act (42 U.S.C. 7412(i)(4)) and according to Proclamation 10958 of July 17, 2025, the Permittee is exempt from compliance with the May 6, 2024 amendments to 40 CFR pt. 63, subp. RRRRR (89 FR 16408) (Taconite MACT amendments) for a period of two years beyond the Taconite MACT amendments' relevant compliance dates. This exemption applies to all compliance deadlines established under the Taconite MACT amendments, with each such deadline extended by two years from the date originally required for such deadline. The effect of this exemption is that, during each such 2-year period, the Permittee is subject to the emissions and compliance obligations that they are currently subject to under 40 CFR pt. 63, subp. RRRRR as that standard existed prior to the Taconite MACT amendments. A copy of the presidential proclamation, as published in the Federal Register on July 23, 2025 (90 FR 34743), is included in Appendix O. [40 CFR 63.4(a)(1), 40 CFR 63.6(a)(1)(ii), 40 CFR 63.6(j), 40 CFR 63.9583(f)(1), 40 CFR 63.9590(a), 40 CFR pt. 63, subp. RRRRR(Table 3)(Item 1), Minn. R. 7011.0050, subp. 1(B), Minn. R. 7011.8030]

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5.12.17	The Permittee must limit Hydrogen fluoride ≤ 0.012 pound per long ton of pellets produced by March 8, 2027. Under authority provided in Section 112(i)(4) of the Clean Air Act (42 U.S.C. 7412(i)(4)) and according to Proclamation 10958 of July 17, 2025, the Permittee is exempt from compliance with the May 6, 2024 amendments to 40 CFR pt. 63, subp. RRRRR (89 FR 16408) (Taconite MACT amendments) for a period of two years beyond the Taconite MACT amendments' relevant compliance dates. This exemption applies to all compliance deadlines established under the Taconite MACT amendments, with each such deadline extended by two years from the date originally required for such deadline. The effect of this exemption is that, during each such 2-year period, the Permittee is subject to the emissions and compliance obligations that they are currently subject to under 40 CFR pt. 63, subp. RRRRR as that standard existed prior to the Taconite MACT amendments. A copy of the presidential proclamation, as published in the Federal Register on July 23, 2025 (90 FR 34743), is included in Appendix O. [40 CFR 63.4(a)(1), 40 CFR 63.6(a)(1)(ii), 40 CFR 63.6(j), 40 CFR 63.9583(f)(1), 40 CFR 63.9590(a), 40 CFR pt. 63, subp. RRRRR(Table 3)(Item 1), Minn. R. 7011.0050, subp. 1(B), Minn. R. 7011.8030]
5.12.18	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9581; 40 CFR 63.9582(a)-(d); 40 CFR 63.9583(a),(e), & (f); 40 CFR 63.9590(a); 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(4); 40 CFR 63.9610(a),(c) & (d); 40 CFR 63.9621(a) & (c); 40 CFR 63.9623(a)(5)-(8); 40 CFR 63.9630(b); 40 CFR 63.9633; 40 CFR 63.9634(a) & (c); 40 CFR 63.9636(a)(4); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9640(a),(d) & (e); 40 CFR 63.9641(a)-(h); 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; 40 CFR 63.9650; 40 CFR 63.9652; 40 CFR pt. 63, subp. RRRRR, Table 1, Item 3 (Existing); 40 CFR pt. 63, subp. RRRRR, Table 2, Item 1(1)(individual limit); 40 CFR pt. 63, subp. RRRRR, Table 3, Item 1; and 40 CFR pt. 63, subp. RRRRR, Table 4, as specified elsewhere in this permit. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3.

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	Under authority provided in Section 112(i)(4) of the Clean Air Act (42 U.S.C. 7412(i)(4)) and according to Proclamation 10958 of July 17, 2025, the Permittee is exempt from compliance with the May 6, 2024, amendments to 40 CFR pt. 63, subp. RRRRR (89 FR 16408) (Taconite MACT amendments) for a period of two years beyond the Taconite MACT amendments' relevant compliance dates. This exemption applies to all compliance deadlines established under the Taconite MACT amendments, with each such deadline extended by two years from the date originally required for such deadline. The effect of this exemption is that, during each such 2-year period, the Permittee is subject to the emissions and compliance obligations that they are currently subject to under 40 CFR pt. 63, subp. RRRRR as that standard existed prior to the Taconite MACT amendments. A copy of the presidential proclamation, as published in the Federal Register on July 23, 2025 (90 FR 34743), is included in Appendix O. [40 CFR 63.4(a)(1), 40 CFR 63.6(a)(1)(ii), 40 CFR 63.6(j), 40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0050, subp. 1(B), Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.12.19	In addition to the other applicable requirements from 40 CFR pt. 63, subp. RRRRR found elsewhere in this permit, to demonstrate compliance with the hydrogen chloride and hydrogen fluoride emission limits in Table 3 of 40 CFR pt. 63, subp. RRRRR, the Permittee must: - meet the applicable hydrogen chloride and hydrogen fluoride emission limits in Table 3 of 40 CFR pt. 63, subp. RRRRR by March 8, 2027; - meet the applicable operating limits for control devices used to meet the applicable hydrogen chloride and hydrogen fluoride emission limits; - conduct initial performance tests for hydrogen chloride and hydrogen fluoride on all stacks associated with each indurating furnace no later than 180 calendar days after March 8, 2027, in accordance with 40 CFR 63.9620(l); - determine compliance with the applicable hydrogen chloride and hydrogen fluoride emission limits by following the applicable test methods and procedures in 40 CFR 63.9621(d)(1) through (9); - submit a site-specific monitoring plan in accordance with 40 CFR 63.9631(i), if applicable; - establish applicable site-specific operating limits according to the procedures in 40 CFR 63.9622(g) and (i); - demonstrate initial compliance in accordance with 40 CFR 63.9623(c)(1) and (3); - conduct subsequent performance test in accordance with 40 CFR 63.9630(b); - install, operate, and maintain a continuous parameter monitoring system and monitor the applicable operating parameters, in accordance with 40 CFR 63.9631(f) and (h); - develop and make available for inspection upon request a site-specific monitoring plan that addresses the requirements in 40 CFR 63.9632(b)(1) through (7); - must meet the requirements for each CPMS in 40 CFR 63.9632(c)(1) and (2); - must conduct a performance evaluation of each CPMS and maintain the CPMS in continuous operation in accordance with your site-specific monitoring plan; - meet the applicable requirements for continuous parameter monitoring systems in 40 CFR 63.9632(g) through (i); - demonstrate continuous compliance in accordance with the applicable requirements of 40 CFR 63.9634(i)(1) and (2), (k), and (l); - demonstrate continuous compliance with the operation and maintenance requirements by completing the applicable requirements of 40 CFR 63.9636(a)(1) through (4); - submit a notification of compliance status in accordance with 40 CFR 63.9640(e); and - keep all applicable records listed in 40 CFR 63.9642. Under authority provided in Section 112(i)(4) of the Clean Air Act (42 U.S.C. 7412(i)(4)) and according to Proclamation 10958 of July 17, 2025, the Permittee is exempt from compliance with the May 6, 2024 amendments to 40 CFR pt. 63, subp. RRRRR (89 FR 16408) (Taconite MACT amendments) for a period of two years beyond the Taconite MACT amendments' relevant compliance dates. This exemption applies to all compliance deadlines established under the Taconite MACT

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	amendments, with each such deadline extended by two years from the date originally required for such deadline. The effect of this exemption is that, during each such 2-year period, the Permittee is subject to the emissions and compliance obligations that they are currently subject to under 40 CFR pt. 63, subp. RRRRR as that standard existed prior to the Taconite MACT amendments. A copy of the presidential proclamation, as published in the Federal Register on July 23, 2025 (90 FR 34743), is included in Appendix O. [40 CFR 63.4(a)(1), 40 CFR 63.6(a)(1)(ii), 40 CFR 63.6(j), 40 CFR pt. 63, subp. RRRRR, Minn. R. 7011.0050, subp. 1(B), Minn. R. 7011.8030]
5.12.20	In addition to the other applicable requirements from 40 CFR pt. 63, subp. RRRRR found elsewhere in this permit, if the Permittee elects not to demonstrate compliance with the mercury emission limit using a mercury CEMS, the Permittee must: - meet the applicable mercury emission limit in Table 2 of 40 CFR pt. 63, subp. RRRRR by March 8, 2027; - meet the applicable operating limits for control devices used to meet the applicable mercury emission limit; - conduct initial performance tests for mercury on all stacks associated with each indurating furnace no later than 180 calendar days after March 8, 2027, in accordance with 40 CFR 63.9620(k)(1); - determine compliance with the applicable mercury emission limit by following the applicable test methods and procedures in 40 CFR 63.9621(d)(1) through (9); - submit a site-specific monitoring plan in accordance with 40 CFR 63.9631(i), if applicable; - establish applicable site-specific operating limits according to the procedures in 40 CFR 63.9622(h); - demonstrate initial compliance in accordance with 40 CFR 63.9623(c)(2); - conduct subsequent performance test in accordance with 40 CFR 63.9630(b); - install, operate, and maintain a continuous parameter monitoring system and monitor the applicable operating parameters, in accordance with 40 CFR 63.9631(g) and (j); - develop and make available for inspection upon request a site-specific monitoring plan that addresses the requirements in 40 CFR 63.9632(b)(1) through (7); - must meet the requirements for each CPMS in 40 CFR 63.9632(c)(1) and (2); - must conduct a performance evaluation of each CPMS and maintain the CPMS in continuous operation in accordance with your site-specific monitoring plan; - meet the applicable requirements for continuous parameter monitoring systems in 40 CFR 63.9632(h) and (i); - demonstrate continuous compliance in accordance with the applicable requirements of 40 CFR 63.9634(j)(1) and (2), (k), (l), and (n); - demonstrate continuous compliance with the operation and maintenance requirements by completing the applicable requirements of 40 CFR 63.9636(a)(1) through (4); - submit a notification of compliance status in accordance with 40 CFR 63.9640(e); and - keep all applicable records listed in 40 CFR 63.9642. Under authority provided in Section 112(i)(4) of the Clean Air Act (42 U.S.C. 7412(i)(4)) and according to Proclamation 10958 of July 17, 2025, the Permittee is exempt from compliance with the May 6, 2024 amendments to 40 CFR pt. 63, subp. RRRRR (89 FR 16408) (Taconite MACT amendments) for a period of two years beyond the Taconite MACT amendments' relevant compliance dates. This exemption applies to all compliance deadlines established under the Taconite MACT amendments, with each such deadline extended by two years from the date originally required for such deadline. The effect of this exemption is that, during each such 2-year period, the Permittee is subject to the emissions and compliance obligations that they are currently subject to under 40 CFR pt. 63, subp. RRRRR as that standard existed prior to the Taconite MACT amendments. A copy of the presidential proclamation, as published in the Federal Register on July 23, 2025 (90 FR 34743), is included in Appendix O. [40 CFR 63.4(a)(1), 40 CFR 63.6(a)(1)(ii), 40 CFR 63.6(j), 40 CFR pt. 63, subp. RRRRR, Minn. R. 7011.0050, subp. 1(B), Minn. R. 7011.8030]
5.12.21	In addition to the other applicable requirements from 40 CFR pt. 63, subp. RRRRR found elsewhere in

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	this permit, if the Permittee elects to demonstrate compliance with the mercury emission limit using a mercury CEMS, the Permittee is not required by 40 CFR pt. 63, subp. RRRRR to conduct performance testing for mercury or to establish and comply with operating limits for control devices used to reduce mercury emissions, and the Permittee must: - conduct a performance evaluation of each CEMS within 180 days of installation of the monitoring system, in accordance with 40 CFR 63.9620(k)(2); - determine compliance with the applicable mercury emission limit by using a 30-day rolling average of the 1-hour arithmetic average CEMS data, including CEMS data during startup and shutdown, in accordance with 40 CFR 63.9621(e); - calculate the 30-day rolling average of 1-hour arithmetic average emission concentrations, including CEMS data during startup and shutdown, in accordance with 40 CFR 63.9623(e); - comply with the requirements in 40 CFR 63.9631(k)(1)-(5); - comply with the requirements if 40 CFR 63.9634(j)(1); - must submit the results of the performance evaluation following the procedure specified in either 40 CFR 63.9641(i)(1) or (2) within 60 days after the date of completing each CEMS performance evaluation; - keep the applicable records specified in 40 CFR 63.9642(b)(1) through (5); and - keep records of the notifications required in 40 CFR 63.9642(f). Under authority provided in Section 112(i)(4) of the Clean Air Act (42 U.S.C. 7412(i)(4)) and according to Proclamation 10958 of July 17, 2025, the Permittee is exempt from compliance with the May 6, 2024 amendments to 40 CFR pt. 63, subp. RRRRR (89 FR 16408) (Taconite MACT amendments) for a period of two years beyond the Taconite MACT amendments' relevant compliance dates. This exemption applies to all compliance deadlines established under the Taconite MACT amendments, with each such deadline extended by two years from the date originally required for such deadline. The effect of this exemption is that, during each such 2-year period, the Permittee is subject to the emissions and compliance obligations that they are currently subject to under 40 CFR pt. 63, subp. RRRRR as that standard existed prior to the Taconite MACT amendments. A copy of the presidential proclamation, as published in the Federal Register on July 23, 2025 (90 FR 34743), is included in Appendix O. [40 CFR 63.4(a)(1), 40 CFR 63.6(a)(1)(ii), 40 CFR 63.6(j), 40 CFR pt. 63, subp. RRRRR, Minn. R. 7011.0050, subp. 1(B), Minn. R. 7011.8030]
5.12.22	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. A as follows: 40 CFR 63.1(a); 40 CFR 63.1(b)(1) & (3); 40 CFR 63.1(c)(1)-(2) & (6); 40 CFR 63.2; 40 CFR 63.3; 40 CFR 63.4(a)-(c); 40 CFR 63.5(a)-(b) & (d)-(f); 40 CFR 63.6(a)(1); 40 CFR 63.6(b)(1)-(5); 40 CFR 63.6(c)(1)-(2); 40 CFR 63.6(e)(1)(iii); 40 CFR 63.6(f)(2)-(3); 40 CFR 63.6(g); 40 CFR 63.6(i)(1)-(14) & (16); 40 CFR 63.6(j); 40 CFR 63.7(a)(3) & (4); 40 CFR 63.7(b)-(d); 40 CFR 63.7(e)(2)-(4);

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	40 CFR 63.7(f)-(h); 40 CFR 63.8(b); 40 CFR 63.8(c)(1)(ii); 40 CFR 63.8(c)(2), (3), & (5)-(8); 40 CFR 63.8(d)(1)-(2); 40 CFR 63.8(e); 40 CFR 63.8(f)(1)-(5); 40 CFR 63.8(g)(1)-(4); 40 CFR 63.9; 40 CFR 63.10(a)(5)-(7); 40 CFR 63.10(b)(1); 40 CFR 63.10(b)(2)(iii), (vi)-(xii), & (xiv); 40 CFR 63.10(b)(3); 40 CFR 63.10(c)(1)-(6) & (10)-(14); 40 CFR 63.10(d)(1)-(2) & (4); 40 CFR 63.10(e)(2) & (3); 40 CFR 63.10(f); 40 CFR 63.12; 40 CFR 63.13; 40 CFR 63.14; and 40 CFR 63.15. A copy of 40 CFR pt. 63, subp. A is included in Appendix H. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. A, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.0050, subp. 1(B), Minn. R. 7017.1010 & 7017.2025, Minn. R. 7019.0100]
5.12.23	Bypass Event: During any period in which a bypass stack is open, the Permittee is prohibited from feeding greenballs/pellets to EQU 3 and fuel use is limited to natural gas. [Minn. R. 7007.0800, subp. 2(A)]
5.12.24	Bypass Event Recordkeeping: The Permittee shall record the following each time a bypass event occurs; - Beginning date and time of event - End date and time of event - Duration of event (min) - Reason for bypass event - Fuel type combusted during event - Greenball/pellet feed rate during event. [Minn. R. 7007.0800, subps. 4-5]
5.12.25	Fuel Sampling: The Permittee shall obtain and maintain a fuel supplier certification of the sulfur weight percent and heating value for each shipment of liquid or solid fuel. In absence of fuel certification, the Permittee shall sample liquid or solid fuel after each delivery but not more than once each calendar week, when multiple deliveries are made. Current ASTM method(s) must be used to determine sulfur content in percent by weight and fuel heating value. The Permittee shall maintain records of fuel deliveries and analysis results. [Minn. R. 7007.0800, subps. 4-5]
EQUI 5	Secondary Crusher L10
5.13.1	The Permittee shall vent emissions from EQUI 5 to control equipment meeting the requirements of TREA 52 whenever EQUI 5 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]

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5.13.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.13.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 6	Conveyor Transfer 008 to 009
5.14.1	The Permittee shall vent emissions from EQUI 6 to control equipment meeting the requirements of TREA 53 whenever EQUI 6 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.14.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.14.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 7	Conveyor Transfer 008 to 009
5.15.1	The Permittee shall vent emissions from EQUI 7 to control equipment meeting the requirements of TREA 55 whenever EQUI 7 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.15.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.15.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 8	Conveyor Transfer 008-009
5.16.1	The Permittee shall vent emissions from EQUI 8 to control equipment meeting the requirements of TREA 230 whenever EQUI 8 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.16.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.16.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 9	Secondary Crusher L11
5.17.1	The Permittee shall vent emissions from EQUI 9 to control equipment meeting the requirements of TREA 57 whenever EQUI 9 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.17.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.17.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 10	Secondary Crusher L14
5.18.1	The Permittee shall vent emissions from EQUI 10 to control equipment meeting the requirements of TREA 248 whenever EQUI 10 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.18.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.18.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]

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EQUI 11	Conveyor Transfer 001-070 Bin
5.19.1	The Permittee shall vent emissions from EQUI 11 to control equipment meeting the requirements of TREA 62 whenever EQUI 11 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.19.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.19.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 12	Conveyor Transfer 003-004
5.20.1	The Permittee shall vent emissions from EQUI 12 to control equipment meeting the requirements of TREA 64 whenever EQUI 12 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.20.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.20.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 13	Tertiary Storage 006-080 Bin
5.21.1	The Permittee shall vent emissions from EQUI 13 to control equipment meeting the requirements of TREA 65 whenever EQUI 13 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.21.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.21.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 14	Tertiary Storage 006-080 Bin
5.22.1	The Permittee shall vent emissions from EQUI 14 to control equipment meeting the requirements of TREA 65 whenever EQUI 14 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.22.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.22.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 15	Tertiary Storage 006-080 Bin
5.23.1	The Permittee shall vent emissions from EQUI 15 to control equipment meeting the requirements of TREA 65 whenever EQUI 15 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.23.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.23.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 19	Storage Bin L3,4
5.24.1	The Permittee shall vent emissions from EQUI 19 to control equipment meeting the requirements of TREA 189 whenever EQUI 19 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.24.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]

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5.24.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 20	Storage Bin L5,6
5.25.1	The Permittee shall vent emissions from EQUI 20 to control equipment meeting the requirements of TREA 190 whenever EQUI 20 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.25.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.25.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 21	Storage Bin L5,6
5.26.1	The Permittee shall vent emissions from EQUI 21 to control equipment meeting the requirements of TREA 190 whenever EQUI 21 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.26.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.26.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 22	Storage Bin L5,6
5.27.1	The Permittee shall vent emissions from EQUI 22 to control equipment meeting the requirements of TREA 190 whenever EQUI 22 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.27.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.27.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 23	Storage Bin L7,8
5.28.1	The Permittee shall vent emissions from EQUI 23 to control equipment meeting the requirements of TREA 191 whenever EQUI 23 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.28.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.28.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 24	Storage Bin L7,8
5.29.1	The Permittee shall vent emissions from EQUI 24 to control equipment meeting the requirements of TREA 191 whenever EQUI 24 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.29.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.29.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 25	Storage Bin L9,10
5.30.1	The Permittee shall vent emissions from EQUI 25 to control equipment meeting the requirements of

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	TREA 192 whenever EQUI 25 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.30.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.30.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 26	Storage Bin L9,10
5.31.1	The Permittee shall vent emissions from EQUI 26 to control equipment meeting the requirements of TREA 192 whenever EQUI 26 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.31.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.31.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 27	L5 Bentonite Day Bins
5.32.1	The Permittee shall vent emissions from EQUI 27 to control equipment meeting the requirements of TREA 110 whenever EQUI 27 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.32.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.32.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 28	L5 Bentonite Day Bins
5.33.1	The Permittee shall vent emissions from EQUI 28 to control equipment meeting the requirements of TREA 110 whenever EQUI 28 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.33.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.33.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 29	L5 Bentonite Day Bins
5.34.1	The Permittee shall vent emissions from EQUI 29 to control equipment meeting the requirements of TREA 110 whenever EQUI 29 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.34.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.34.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 30	L5 Bentonite Day Bins
5.35.1	The Permittee shall vent emissions from EQUI 30 to control equipment meeting the requirements of TREA 110 whenever EQUI 30 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.35.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.35.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]

Requirement number	Requirement and citation
EQUI 31	L5 Bentonite Blending
5.36.1	The Permittee shall vent emissions from EQUI 31 to control equipment meeting the requirements of TREA 111 whenever EQUI 31 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.36.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.36.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 32	L5 Bentonite Blending
5.37.1	The Permittee shall vent emissions from EQUI 32 to control equipment meeting the requirements of TREA 111 whenever EQUI 32 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.37.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.37.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 33	L5 Bentonite Blending
5.38.1	The Permittee shall vent emissions from EQUI 33 to control equipment meeting the requirements of TREA 111 whenever EQUI 33 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.38.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.38.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 34	L5 Bentonite Blending
5.39.1	The Permittee shall vent emissions from EQUI 34 to control equipment meeting the requirements of TREA 111 whenever EQUI 34 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.39.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.39.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 35	L5 Bentonite Blending
5.40.1	The Permittee shall vent emissions from EQUI 35 to control equipment meeting the requirements of TREA 111 whenever EQUI 35 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.40.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.40.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 36	L5 Grate Feed
5.41.1	The Permittee shall vent emissions from EQUI 36 to control equipment meeting the requirements of TREA 112 whenever EQUI 36 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.41.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]

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5.41.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 37	L5 Grate Discharge
5.42.1	The Permittee shall vent emissions from EQUI 37 to control equipment meeting the requirements of TREA 113 whenever EQUI 37 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.42.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.42.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
5.42.4	The Permittee shall vent emissions from EQUI 37 to control equipment meeting the requirements of TREA 113 whenever EQUI 37 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
EQUI 41	L5 Pellet Cooler Vent Stack
5.43.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.43.2	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
5.43.3	Visible Emissions: The Permittee shall check the Line 5 Pellet Cooler Stack (STRU 133) for any visible emissions once each day of operation during daylight hours, except during inclement weather. [Minn. R. 7007.0800, subp. 2(A)]
5.43.4	Recordkeeping of Visible Emissions: The Permittee shall record the time and date of each visible emission inspection, whether or not any visible emissions were observed and whether or not inclement weather was present. [Minn. R. 7007.0800, subps. 4-5]
5.43.5	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - visible emissions are observed; - the Pellet Cooler or any of its components are found during the inspection to need repair Corrective actions shall eliminate visible emissions, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M plan. The Permittee shall keep a record of the type and date of any corrective action taken. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subps. 4-5]
EQUI 42	L5 Cooler Discharge / Fines Conveyor
5.44.1	The Permittee shall vent emissions from EQUI 42 to control equipment meeting the requirements of TREA 179 whenever EQUI 42 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.44.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.44.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 46	L4 Pellet Scrm Fine Belt
5.45.1	The Permittee shall vent emissions from EQUI 46 to control equipment meeting the requirements of TREA 108 whenever EQUI 46 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]

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5.45.2	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
5.45.3	The Permittee must limit Filterable Particulate Matter <= 0.05 grams per dry standard cubic meter (0.022 gr/dscf). [40 CFR 60.382(a)(1), Minn. R. 7011.2700]
5.45.4	The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. LL, as follows: 40 CFR 60.380; 40 CFR 60.381; 40 CFR 60.382(a)(1); 40 CFR 60.383; 40 CFR 60.384; 40 CFR 60.385(a); 40 CFR 60.385(b)-(e); and 40 CFR 60.386(a), (b)(1), & (c). A copy of 40 CFR pt. 60, subp. LL is included in Appendix E. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 60, subp. LL, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.2700]
5.45.5	The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. A as follows: 40 CFR 60.1(a)-(b), & (c); 40 CFR 60.2; 40 CFR 60.3; 40 CFR 60.4; 40 CFR 60.5; 40 CFR 60.6(a) & (b); 40 CFR 60.7(a)(1), (3), (4), & (6); 40 CFR 60.7(b); 40 CFR 60.8; 40 CFR 60.9; 40 CFR 60.11(a)-(d), (f), & (g); 40 CFR 60.11(e)(1)-(3) & (6)-(8); 40 CFR 60.12; 40 CFR 60.14(a)-(c) & (e)-(g); 40 CFR 60.15; 40 CFR 60.17; and 40 CFR 60.19. A copy of 40 CFR pt. 60, subp. A is included in Appendix C. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 60, subp. A, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.0050, subp. 1(A), Minn. R. 7017.1010 & 7017.2015, subp. 2,

Requirement number	Requirement and citation
	Minn. R. 7019.0100]
EQUI 47	Step I Coarse Crusher
5.46.1	The Permittee shall vent emissions from EQUI 47 to control equipment meeting the requirements of TREA 115 whenever EQUI 47 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.46.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.46.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 48	Step III Coarse Crusher
5.47.1	The Permittee shall vent emissions from EQUI 48 to control equipment meeting the requirements of TREA 117 whenever EQUI 48 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.47.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.47.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 51	Conveyor Transfer 005-006
5.48.1	The Permittee shall vent emissions from EQUI 51 to control equipment meeting the requirements of TREA 124 whenever EQUI 51 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.48.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.48.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 52	Conveyor Transfer 005 Feed
5.49.1	The Permittee shall vent emissions from EQUI 52 to control equipment meeting the requirements of TREA 219 whenever EQUI 52 operates. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.49.2	Particulate Matter <= 0.02 grains per dry standard cubic foot. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.49.3	PM < 10 micron <= 0.01 grains per dry standard cubic foot. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.49.4	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.49.5	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 53	Conveyor Transfer 005 Discharge
5.50.1	The Permittee shall vent emissions from EQUI 53 to control equipment meeting the requirements of TREA 220 whenever EQUI 53 operates. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.50.2	Particulate Matter <= 0.02 grains per dry standard cubic foot. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]
5.50.3	PM < 10 micron <= 0.01 grains per dry standard cubic foot. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(1)(i) & Minn. R. 7007.3000]

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5.50.4	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.50.5	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 54	Tertiary Storage Bin 1-4
5.51.1	The Permittee shall vent emissions from EQUI 54 to control equipment meeting the requirements of TREA 200 whenever EQUI 54 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.51.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.51.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 55	Tertiary Crusher L7
5.52.1	The Permittee shall vent emissions from EQUI 55 to control equipment meeting the requirements of TREA 200 whenever EQUI 55 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.52.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.52.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 56	Tertiary Crusher L8
5.53.1	The Permittee shall vent emissions from EQUI 56 to control equipment meeting the requirements of TREA 201 whenever EQUI 56 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.53.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.53.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 57	Tertiary Crusher L9
5.54.1	The Permittee shall vent emissions from EQUI 57 to control equipment meeting the requirements of TREA 202 whenever EQUI 57 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.54.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.54.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 58	Tertiary Crusher L10
5.55.1	The Permittee shall vent emissions from EQUI 58 to control equipment meeting the requirements of TREA 203 whenever EQUI 58 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.55.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.55.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 59	Tertiary Crusher L11

Requirement number	Requirement and citation
5.56.1	The Permittee shall vent emissions from EQUI 59 to control equipment meeting the requirements of TREA 204 whenever EQUI 59 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.56.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.56.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 60	Tertiary Crusher L12
5.57.1	The Permittee shall vent emissions from EQUI 60 to control equipment meeting the requirements of TREA 205 whenever EQUI 60 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.57.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.57.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 61	Tertiary Crusher L13
5.58.1	The Permittee shall vent emissions from EQUI 61 to control equipment meeting the requirements of TREA 206 whenever EQUI 61 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.58.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.58.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 62	Tertiary Crusher L14
5.59.1	The Permittee shall vent emissions from EQUI 62 to control equipment meeting the requirements of TREA 207 whenever EQUI 62 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.59.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.59.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 63	Tertiary Crusher L15
5.60.1	The Permittee shall vent emissions from EQUI 63 to control equipment meeting the requirements of TREA 207 whenever EQUI 63 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.60.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.60.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 64	Tertiary Crusher L16
5.61.1	The Permittee shall vent emissions from EQUI 64 to control equipment meeting the requirements of TREA 209 whenever EQUI 64 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.61.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.61.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further

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	reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 65	Tertiary Crusher 080 Bins 5-8
5.62.1	The Permittee shall vent emissions from EQUI 65 to control equipment meeting the requirements of TREA 28 and TREA 209 whenever EQUI 65 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.62.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.62.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 66	Tertiary Crusher 080 Bins 5-8
5.63.1	The Permittee shall vent emissions from EQUI 66 to control equipment meeting the requirements of TREA 202 and TREA 203 whenever EQUI 66 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.63.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.63.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 67	Tertiary Crusher 080 Bins 5-8
5.64.1	The Permittee shall vent emissions from EQUI 67 to control equipment meeting the requirements of TREA 204 and TREA 205 whenever EQUI 67 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.64.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.64.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 68	Tertiary Crusher 080 Bins 5-8
5.65.1	The Permittee shall vent emissions from EQUI 68 to control equipment meeting the requirements of TREA 206 and TREA 207 whenever EQUI 68 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.65.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.65.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 72	Step II Coarse Crusher
5.66.1	The Permittee shall vent emissions from EQUI 72 to control equipment meeting the requirements of TREA 116 whenever EQUI 72 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.66.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.66.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 77	Conveyor Transfer 010-01
5.67.1	The Permittee shall vent emissions from EQUI 77 to control equipment meeting the requirements of TREA 212 whenever EQUI 77 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]

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5.67.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.67.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 78	Conveyor Transfer 010-01
5.68.1	The Permittee shall vent emissions from TREA 78 to control equipment meeting the requirements of TREA 212 whenever TREA 78 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.68.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.68.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 79	L4 Conveyor Transfer Feeder
5.69.1	The Permittee shall vent emissions from EQUI 79 to control equipment meeting the requirements of TREA 107 whenever EQUI 79 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.69.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.69.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 81	L5 Conveyor Transfer 041/046 to 042 Belts
5.70.1	The Permittee shall vent emissions from EQUI 81 to control equipment meeting the requirements of TREA 133 whenever EQUI 81 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.70.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.70.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 82	L5 Conveyor Transfer 041/046 to 042 Belts
5.71.1	The Permittee shall vent emissions from EQUI 82 to control equipment meeting the requirements of TREA 133 whenever EQUI 82 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.71.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.71.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 87	S3 Conveyor Transfer
5.72.1	The Permittee shall vent emissions from EQUI 87 to control equipment meeting the requirements of TREA 134 whenever EQUI 87 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.72.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.72.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 88	S3 Bentonite Storage

Requirement number	Requirement and citation
5.73.1	The Permittee shall vent emissions from EQUI 88 to control equipment meeting the requirements of TREA 135 whenever EQUI 88 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.73.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.73.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 89	S3 Bentonite Storage
5.74.1	The Permittee shall vent emissions from EQUI 89 to control equipment meeting the requirements of TREA 135 whenever EQUI 89 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.74.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.74.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 90	L6 Bentonite Day Bin
5.75.1	The Permittee shall vent emissions from EQUI 90 to control equipment meeting the requirements of TREA 136 whenever EQUI 90 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.75.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.75.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 91	L6 Bentonite Day Bin
5.76.1	The Permittee shall vent emissions from TREA 91 to control equipment meeting the requirements of EQUI 136 whenever TREA 92 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.76.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.76.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 92	L6 Bentonite Day Bin
5.77.1	The Permittee shall vent emissions from EQUI 92 to control equipment meeting the requirements of TREA 136 whenever EQUI 92 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.77.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.77.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 93	L6 Bentonite Blending
5.78.1	The Permittee shall vent emissions from EQUI 93 to control equipment meeting the requirements of TREA 137 whenever EQUI 93 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.78.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.78.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further

Requirement number	Requirement and citation
	reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 94	L6 Bentonite Blending
5.79.1	The Permittee shall vent emissions from EQUI 94 to control equipment meeting the requirements of TREA 137 whenever EQUI 94 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.79.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.79.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 95	L6 Bentonite Blending
5.80.1	The Permittee shall vent emissions from EQUI 95 to control equipment meeting the requirements of TREA 137 whenever EQUI 95 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.80.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.80.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 96	L6 Grate Feed
5.81.1	The Permittee shall vent emissions from EQUI 96 to control equipment meeting the requirements of TREA 138 whenever EQUI 96 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.81.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.81.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 97	L6 Grate Discharge
5.82.1	The Permittee shall vent emissions from EQUI 97 to control equipment meeting the requirements of TREA 139 whenever EQUI 97 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.82.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.82.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 98	L7 Bentonite Day Bin
5.83.1	The Permittee shall vent emissions from EQUI 98 to control equipment meeting the requirements of TREA 130 whenever EQUI 98 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.83.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.83.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 99	L7 Bentonite Day Bin
5.84.1	The Permittee shall vent emissions from EQUI 99 to control equipment meeting the requirements of TREA 130 whenever EQUI 99 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]

Requirement number	Requirement and citation
5.84.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.84.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 100	L7 Bentonite Day Bin
5.85.1	The Permittee shall vent emissions from EQUI 100 to control equipment meeting the requirements of TREA 130 whenever EQUI 100 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.85.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.85.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 101	L7 Bentonite Blending
5.86.1	The Permittee shall vent emissions from EQUI 101 to control equipment meeting the requirements of TREA 145 whenever EQUI 101 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.86.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.86.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 102	L7 Bentonite Blending
5.87.1	The Permittee shall vent emissions from EQUI 102 to control equipment meeting the requirements of TREA 145 whenever EQUI 102 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.87.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.87.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 103	L7 Bentonite Blending
5.88.1	The Permittee shall vent emissions from EQUI 103 to control equipment meeting the requirements of TREA 145 whenever EQUI 103 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.88.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.88.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 104	L7 Grate Feed
5.89.1	The Permittee shall vent emissions from EQUI 104 to control equipment meeting the requirements of TREA 146 whenever EQUI 104 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.89.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.89.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 108	Step I 043/044 Conveyor Transfer

Requirement number	Requirement and citation
5.90.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.90.2	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 109	Step III 042 Conveyor Vent
5.91.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.91.2	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 110	Step III 043 Conveyor Vent
5.92.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.92.2	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 111	Step III 044 Conveyor Vent
5.93.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.93.2	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 112	Step III 044 Conveyor Vent
5.94.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.94.2	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 113	Step III 044 Conveyor Vent
5.95.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.95.2	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 114	Step III 044 Conveyor Vent
5.96.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.96.2	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 115	Step III 044 Conveyor Vent
5.97.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.97.2	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 116	Step III 044 Conveyor Vent
5.98.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.98.2	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]

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EQUI 117	Step III 044 Conveyor Vent
5.99.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.99.2	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 118	Step III 044 Conveyor Vent
5.100.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.100.2	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 122	L7 Conveyor Transfer
5.101.1	The Permittee shall vent emissions from EQUI 122 to control equipment meeting the requirements of TREA 185 whenever EQUI 122 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.101.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.101.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 123	L7 Conveyor Transfer
5.102.1	The Permittee shall vent emissions from EQUI 123 to control equipment meeting the requirements of TREA 185 whenever EQUI 123 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.102.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.102.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 124	Step III 043/044 Conveyor Transfer
5.103.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.103.2	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 125	Step III 043/044 Conveyor Transfer
5.104.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.104.2	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 126	Step III 044-6/044-7 Conveyor Transfer
5.105.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.105.2	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 127	Step III Pellet Loadout
5.106.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.106.2	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further

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	reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 136	Storage Bin L13,14
5.107.1	The Permittee shall vent emissions from EQUI 136 to control equipment meeting the requirements of TREA 218 whenever EQUI 136 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.107.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.107.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 137	Storage Bin L15,16
5.108.1	The Permittee shall vent emissions from EQUI 137 to control equipment meeting the requirements of TREA 187 whenever EQUI 137 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.108.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.108.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 138	Storage Bin L15,16
5.109.1	The Permittee shall vent emissions from EQUI 138 to control equipment meeting the requirements of TREA 187 whenever EQUI 138 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.109.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.109.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 139	Storage Bin L15,16
5.110.1	The Permittee shall vent emissions from EQUI 139 to control equipment meeting the requirements of TREA 187 whenever EQUI 139 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.110.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.110.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 140	Storage Bin L17,18
5.111.1	The Permittee shall vent emissions from EQUI 140 to control equipment meeting the requirements of TREA 216 whenever EQUI 140 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.111.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.111.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 141	Storage Bin L17,18
5.112.1	The Permittee shall vent emissions from EQUI 141 to control equipment meeting the requirements of TREA 216 whenever EQUI 141 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]

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5.112.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.112.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 142	Storage Bin L17,18
5.113.1	The Permittee shall vent emissions from EQUI 142 to control equipment meeting the requirements of TREA 216 whenever EQUI 142 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.113.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.113.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 143	L3 Bentonite Blending
5.114.1	The Permittee shall vent emissions from EQUI 143 to control equipment meeting the requirements of TREA 94 whenever EQUI 143 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.114.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.114.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 144	L3 Bentonite Blending
5.115.1	The Permittee shall vent emissions from EQUI 144 to control equipment meeting the requirements of TREA 94 whenever EQUI 144 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.115.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.115.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 146	L3 Rotary Kiln
5.116.1	The Permittee shall vent emissions from EQUI 146 to control equipment meeting the requirements of TREA 224 whenever EQUI 146 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
5.116.2	Fuel Restrictions: The Permittee shall combust at the kiln burner natural gas, fuel oil, and/or types of biomass that are specified in Appendix N of this permit; and at the preheat burners natural gas. Other fuels, as allowed under 40 CFR Part 241, may be combusted for a short period of time during a trial burn as specified and approved by a major amendment to this permit. [Minn. R. 7007.0800, subp. 2, Title I Condition: 40 CFR 52.21(j)(BACT) and Minn. R. 7007.3000]
5.116.3	Fluorides <= 1.04 pounds per hour 3-hour average at Line 3 Waste Gas Stack (STRU 225). [Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
5.116.4	Carbon Monoxide <= 68.8 pounds per hour 3-hour average at Line 3 Waste Gas Stack (STRU 225). [Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
5.116.5	Volatile Organic Compounds <= 51.6 pounds per hour 3-hour average, as propane, at Line 3 Waste Gas Stack (STRU 225). [Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
5.116.6	Opacity <= 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity. [Minn. R. 7011.0610, subp. 1(A)(2)]
5.116.7	Sulfur Dioxide <= 2.0 pounds per million Btu heat input when burning liquid fossil fuels. If more than

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	one fuel is burned simultaneously, calculate the emission limit as indicated in Minn. R. 7011.0605. The potential to emit from the unit is 0.396 lb/MMBtu due to equipment design and allowable fuels. [Minn. R. 7011.0610, subp. 2]
5.116.8	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0610, subp. 1(A)(1)]
5.116.9	The Permittee shall keep records of fuel purchases showing fuel types. [Minn. R. 7007.0800, subp. 2, Title I Condition: 40 CFR 52.21(j)(BACT) and Minn. R. 7007.3000]
5.116.10	Temperature >= 1400 degrees Fahrenheit 3-hour rolling average monitored at the kiln exit. This limit does not apply during EQUI 146 startup or shutdown. If the 3-hour rolling average operating temperature is below the minimum temperature limit, this must be reported as a deviation. [Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
5.116.11	Kiln exit temperature continuous monitoring. The Permittee must install, maintain, and operate at all times a temperature monitoring device(s) at the kiln exit. A minimum of one thermocouple shall be installed at the kiln exit. Each temperature monitoring device shall be certified by the manufacturer to have an accuracy of +/-5% over its operating range. The temperature monitoring device shall be operated continuously, and data recorded during all periods of operation. Continuously is defined as determining at least one data point in each 15-minute time interval. [Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
5.116.12	The Permittee must maintain a continuous hard copy readout or computer disk file of the temperature readings and calculated 3-hour rolling average temperature at the kiln exit. [Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
5.116.13	Burner and grate inspections. The Permittee must inspect the kiln and grate burners every 18 months. Each inspection must be conducted no more than 18 months after the previous inspection. The inspection must verify at a minimum: -proper alignment of kiln burners and grate burners; and -good operating condition of combustion air fans for the kiln burners and grate burners. The Permittee must keep a written record of the inspection and any action resulting from the inspection. [Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
5.116.14	The Permittee must limit Filterable Particulate Matter <= 0.01 grains per dry standard cubic foot 3-hour average measured as a flow-weighted mean concentration for all stacks from the indurating furnace. The Permittee must determine the flow-weighted mean concentration of front-half particulate matter emissions following the procedures in 40 CFR Section 63.9621(c). [40 CFR 63.9590(a), 40 CFR 63.9621(c), 40 CFR 63.9634(c)(1), 40 CFR pt. 63, subp. RRRRR(Table 1)(Item 3)Existing, Minn. R. 7011.8030]
5.116.15	The Permittee must limit Mercury <= 0.000014 pound per long ton of pellets produced by March 8, 2027. Under authority provided in Section 112(i)(4) of the Clean Air Act (42 U.S.C. 7412(i)(4)) and according to Proclamation 10958 of July 17, 2025, the Permittee is exempt from compliance with the May 6, 2024, amendments to 40 CFR pt. 63, subp. RRRRR (89 FR 16408) (Taconite MACT amendments) for a period of two years beyond the Taconite MACT amendments' relevant compliance dates. This exemption applies to all compliance deadlines established under the Taconite MACT amendments, with each such deadline extended by two years from the date originally required for such deadline. The effect of this exemption is that, during each such 2-year period, the Permittee is subject to the emissions and compliance obligations that they are currently subject to under 40 CFR pt. 63, subp. RRRRR as that standard existed prior to the Taconite MACT amendments. A copy of the presidential proclamation, as published in the Federal Register on July 23, 2025 (90 FR 34743), is included in

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	Appendix O. [40 CFR 63.4(a)(1), 40 CFR 63.6(j), 40 CFR 63.6(a)(1)(ii), 40 CFR 63.9583(f)(1), 40 CFR 63.9590(a), 40 CFR pt. 63, subp. RRRRR(Table 2)(Item 1), Minn. R. 7011.8030]
5.116.16	The Permittee must limit Hydrogen Chloride $\leq$ 0.046 pound per long ton of pellets produced by March 8, 2027. Under authority provided in Section 112(i)(4) of the Clean Air Act (42 U.S.C. 7412(i)(4)) and according to Proclamation 10958 of July 17, 2025, the Permittee is exempt from compliance with the May 6, 2024, amendments to 40 CFR pt. 63, subp. RRRRR (89 FR 16408) (Taconite MACT amendments) for a period of two years beyond the Taconite MACT amendments' relevant compliance dates. This exemption applies to all compliance deadlines established under the Taconite MACT amendments, with each such deadline extended by two years from the date originally required for such deadline. The effect of this exemption is that, during each such 2-year period, the Permittee is subject to the emissions and compliance obligations that they are currently subject to under 40 CFR pt. 63, subp. RRRRR as that standard existed prior to the Taconite MACT amendments. A copy of the presidential proclamation, as published in the Federal Register on July 23, 2025 (90 FR 34743), is included in Appendix O. [40 CFR 63.4(a)(1), 40 CFR 63.6(j), 40 CFR 63.6(a)(1)(ii), 40 CFR 63.9583(f)(1), 40 CFR 63.9590(a), 40 CFR pt. 63, subp. RRRRR(Table 3)(Item 1), Minn. R. 7011.8030]
5.116.17	The Permittee must limit Hydrogen fluoride $\leq$ 0.012 pound per long ton of pellets produced by March 8, 2027. Under authority provided in Section 112(i)(4) of the Clean Air Act (42 U.S.C. 7412(i)(4)) and according to Proclamation 10958 of July 17, 2025, the Permittee is exempt from compliance with the May 6, 2024, amendments to 40 CFR pt. 63, subp. RRRRR (89 FR 16408) (Taconite MACT amendments) for a period of two years beyond the Taconite MACT amendments' relevant compliance dates. This exemption applies to all compliance deadlines established under the Taconite MACT amendments, with each such deadline extended by two years from the date originally required for such deadline. The effect of this exemption is that, during each such 2-year period, the Permittee is subject to the emissions and compliance obligations that they are currently subject to under 40 CFR pt. 63, subp. RRRRR as that standard existed prior to the Taconite MACT amendments. A copy of the presidential proclamation, as published in the Federal Register on July 23, 2025 (90 FR 34743), is included in Appendix O. [40 CFR 63.4(a)(1), 40 CFR 63.6(j), 40 CFR 63.6(a)(1)(ii), 40 CFR 63.9583(f)(1), 40 CFR 63.9590(a), 40 CFR pt. 63, subp. RRRRR(Table 3)(Item 1), Minn. R. 7011.8030]
5.116.18	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9581; 40 CFR 63.9582(a)-(d); 40 CFR 63.9583(a),(e), & (f); 40 CFR 63.9590(a); 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(4); 40 CFR 63.9610(a),(c) & (d); 40 CFR 63.9621(a) & (c); 40 CFR 63.9623(a)(5)-(8); 40 CFR 63.9630(b); 40 CFR 63.9633; 40 CFR 63.9634(a) & (c); 40 CFR 63.9636(a)(4); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9640(a),(d) & (e);

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	40 CFR 63.9641(a)-(h); 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; 40 CFR 63.9650; 40 CFR 63.9652; 40 CFR pt. 63, subp. RRRRR, Table 1, Item 3 (Existing); 40 CFR pt. 63, subp. RRRRR, Table 2, Item 1(1)(individual limit); 40 CFR pt. 63, subp. RRRRR, Table 3, Item 1; and 40 CFR pt. 63, subp. RRRRR, Table 4, as specified elsewhere in this permit. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. Under authority provided in Section 112(i)(4) of the Clean Air Act (42 U.S.C. 7412(i)(4)) and according to Proclamation 10958 of July 17, 2025, the Permittee is exempt from compliance with the May 6, 2024, amendments to 40 CFR pt. 63, subp. RRRRR (89 FR 16408) (Taconite MACT amendments) for a period of two years beyond the Taconite MACT amendments' relevant compliance dates. This exemption applies to all compliance deadlines established under the Taconite MACT amendments, with each such deadline extended by two years from the date originally required for such deadline. The effect of this exemption is that, during each such 2-year period, the Permittee is subject to the emissions and compliance obligations that they are currently subject to under 40 CFR pt. 63, subp. RRRRR as that standard existed prior to the Taconite MACT amendments. A copy of the presidential proclamation, as published in the Federal Register on July 23, 2025 (90 FR 34743), is included in Appendix O. [40 CFR 63.4(a)(1), 40 CFR 63.6(j), 40 CFR 63.6(a)(1)(ii), 40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.116.19	In addition to the other applicable requirements from 40 CFR pt. 63, subp. RRRRR found elsewhere in this permit, to demonstrate compliance with the hydrogen chloride and hydrogen fluoride emission limits in Table 3 of 40 CFR pt. 63, subp. RRRRR, the Permittee must: - meet the applicable hydrogen chloride and hydrogen fluoride emission limits in Table 3 of 40 CFR pt. 63, subp. RRRRR by March 8, 2027; - meet the applicable operating limits for control devices used to meet the applicable hydrogen chloride and hydrogen fluoride emission limits; - conduct initial performance tests for hydrogen chloride and hydrogen fluoride on all stacks associated with each indurating furnace no later than 180 calendar days after March 8, 2027, in accordance with 40 CFR 63.9620(l); - determine compliance with the applicable hydrogen chloride and hydrogen fluoride emission limits by following the applicable test methods and procedures in 40 CFR 63.9621(d)(1) through (9); - submit a site-specific monitoring plan in accordance with 40 CFR 63.9631(i), if applicable; - establish applicable site-specific operating limits according to the procedures in 40 CFR 63.9622(g) and (i); - demonstrate initial compliance in accordance with 40 CFR 63.9623(c)(1) and (3); - conduct subsequent performance test in accordance with 40 CFR 63.9630(b); - install, operate, and maintain a continuous parameter monitoring system and monitor the applicable operating parameters, in accordance with 40 CFR 63.9631(f) and (h); - develop and make available for inspection upon request a site-specific monitoring plan that addresses the requirements in 40 CFR 63.9632(b)(1) through (7); - must meet the requirements for each CPMS in 40 CFR 63.9632(c)(1) and (2);

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	- must conduct a performance evaluation of each CPMS and maintain the CPMS in continuous operation in accordance with your site-specific monitoring plan; - meet the applicable requirements for continuous parameter monitoring systems in 40 CFR 63.9632(g) through (i); - demonstrate continuous compliance in accordance with the applicable requirements of 40 CFR 63.9634(i)(1) and (2), (k), and (l); - demonstrate continuous compliance with the operation and maintenance requirements by completing the applicable requirements of 40 CFR 63.9636(a)(1) through (4); - submit a notification of compliance status in accordance with 40 CFR 63.9640(e); and - keep all applicable records listed in 40 CFR 63.9642. Under authority provided in Section 112(i)(4) of the Clean Air Act (42 U.S.C. 7412(i)(4)) and according to Proclamation 10958 of July 17, 2025, the Permittee is exempt from compliance with the May 6, 2024, amendments to 40 CFR pt. 63, subp. RRRRR (89 FR 16408) (Taconite MACT amendments) for a period of two years beyond the Taconite MACT amendments' relevant compliance dates. This exemption applies to all compliance deadlines established under the Taconite MACT amendments, with each such deadline extended by two years from the date originally required for such deadline. The effect of this exemption is that, during each such 2-year period, the Permittee is subject to the emissions and compliance obligations that they are currently subject to under 40 CFR pt. 63, subp. RRRRR as that standard existed prior to the Taconite MACT amendments. A copy of the presidential proclamation, as published in the Federal Register on July 23, 2025 (90 FR 34743), is included in Appendix O. [40 CFR 63.4(a)(1), 40 CFR 63.6(j), 40 CFR 63.6(a)(1)(ii), 40 CFR pt. 63, subp. RRRRR, Minn. R. 7011.8030]
5.116.20	In addition to the other applicable requirements from 40 CFR pt. 63, subp. RRRRR found elsewhere in this permit, if the Permittee elects not to demonstrate compliance with the mercury emission limit using a mercury CEMS, the Permittee must: - meet the applicable mercury emission limit in Table 2 of 40 CFR pt. 63, subp. RRRRR by March 8, 2027; - meet the applicable operating limits for control devices used to meet the applicable mercury emission limit; - conduct initial performance tests for mercury on all stacks associated with each indurating furnace no later than 180 calendar days after March 8, 2027, in accordance with 40 CFR 63.9620(k)(1); - determine compliance with the applicable mercury emission limit by following the applicable test methods and procedures in 40 CFR 63.9621(d)(1) through (9); - submit a site-specific monitoring plan in accordance with 40 CFR 63.9631(i), if applicable; - establish applicable site-specific operating limits according to the procedures in 40 CFR 63.9622(h); - demonstrate initial compliance in accordance with 40 CFR 63.9623(c)(2); - conduct subsequent performance test in accordance with 40 CFR 63.9630(b); - install, operate, and maintain a continuous parameter monitoring system and monitor the applicable operating parameters, in accordance with 40 CFR 63.9631(g) and (j); - develop and make available for inspection upon request a site-specific monitoring plan that addresses the requirements in 40 CFR 63.9632(b)(1) through (7); - must meet the requirements for each CPMS in 40 CFR 63.9632(c)(1) and (2); - must conduct a performance evaluation of each CPMS and maintain the CPMS in continuous operation in accordance with your site-specific monitoring plan; - meet the applicable requirements for continuous parameter monitoring systems in 40 CFR 63.9632(h) and (i); - demonstrate continuous compliance in accordance with the applicable requirements of 40 CFR 63.9634(j)(1) and (2), (k), (l), and (n); - demonstrate continuous compliance with the operation and maintenance requirements by completing the applicable requirements of 40 CFR 63.9636(a)(1) through (4);

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	- submit a notification of compliance status in accordance with 40 CFR 63.9640(e); and - keep all applicable records listed in 40 CFR 63.9642. Under authority provided in Section 112(i)(4) of the Clean Air Act (42 U.S.C. 7412(i)(4)) and according to Proclamation 10958 of July 17, 2025, the Permittee is exempt from compliance with the May 6, 2024, amendments to 40 CFR pt. 63, subp. RRRRR (89 FR 16408) (Taconite MACT amendments) for a period of two years beyond the Taconite MACT amendments' relevant compliance dates. This exemption applies to all compliance deadlines established under the Taconite MACT amendments, with each such deadline extended by two years from the date originally required for such deadline. The effect of this exemption is that, during each such 2-year period, the Permittee is subject to the emissions and compliance obligations that they are currently subject to under 40 CFR pt. 63, subp. RRRRR as that standard existed prior to the Taconite MACT amendments. A copy of the presidential proclamation, as published in the Federal Register on July 23, 2025 (90 FR 34743), is included in Appendix O. [40 CFR 63.4(a)(1), 40 CFR 63.6(j), 40 CFR 63.6(a)(1)(ii), 40 CFR pt. 63, subp. RRRRR, Minn. R. 7011.8030]
5.116.21	In addition to the other applicable requirements from 40 CFR pt. 63, subp. RRRRR found elsewhere in this permit, if the Permittee elects to demonstrate compliance with the mercury emission limit using a mercury CEMS, the Permittee is not required by 40 CFR pt. 63, subp. RRRRR to conduct performance testing for mercury or to establish and comply with operating limits for control devices used to reduce mercury emissions, and the Permittee must: - conduct a performance evaluation of each CEMS within 180 days of installation of the monitoring system, in accordance with 40 CFR 63.9620(k)(2); - determine compliance with the applicable mercury emission limit by using a 30-day rolling average of the 1-hour arithmetic average CEMS data, including CEMS data during startup and shutdown, in accordance with 40 CFR 63.9621(e); - calculate the 30-day rolling average of 1-hour arithmetic average emission concentrations, including CEMS data during startup and shutdown, in accordance with 40 CFR 63.9623(e); - comply with the requirements in 40 CFR 63.9631(k)(1)-(5); - comply with the requirements if 40 CFR 63.9634(j)(1); - must submit the results of the performance evaluation following the procedure specified in either 40 CFR 63.9641(i)(1) or (2) within 60 days after the date of completing each CEMS performance evaluation; - keep the applicable records specified in 40 CFR 63.9642(b)(1) through (5); and - keep records of the notifications required in 40 CFR 63.9642(f). Under authority provided in Section 112(i)(4) of the Clean Air Act (42 U.S.C. 7412(i)(4)) and according to Proclamation 10958 of July 17, 2025, the Permittee is exempt from compliance with the May 6, 2024, amendments to 40 CFR pt. 63, subp. RRRRR (89 FR 16408) (Taconite MACT amendments) for a period of two years beyond the Taconite MACT amendments' relevant compliance dates. This exemption applies to all compliance deadlines established under the Taconite MACT amendments, with each such deadline extended by two years from the date originally required for such deadline. The effect of this exemption is that, during each such 2-year period, the Permittee is subject to the emissions and compliance obligations that they are currently subject to under 40 CFR pt. 63, subp. RRRRR as that standard existed prior to the Taconite MACT amendments. A copy of the presidential proclamation, as published in the Federal Register on July 23, 2025 (90 FR 34743), is included in Appendix O. [40 CFR 63.4(a)(1), 40 CFR 63.6(j), 40 CFR 63.6(a)(1)(ii), 40 CFR pt. 63, subp. RRRRR, Minn. R. 7011.8030]
5.116.22	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. A as follows: 40 CFR 63.1(a); 40 CFR 63.1(b)(1);

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	40 CFR 63.1(b)(3);
	40 CFR 63.1(c)(1);
	40 CFR 63.1(c)(2);
	40 CFR 63.1(c)(6);
	40 CFR 63.2;
	40 CFR 63.3;
	40 CFR 63.4(a);
	40 CFR 63.4(b);
	40 CFR 63.4(c);
	40 CFR 63.5(a);
	40 CFR 63.5(b);
	40 CFR 63.5(d);
	40 CFR 63.5(e);
	40 CFR 63.5(f);
	40 CFR 63.6(a)(1);
	40 CFR 63.6(b)(1);
	40 CFR 63.6(b)(2);
	40 CFR 63.6(b)(3);
	40 CFR 63.6(b)(4);
	40 CFR 63.6(b)(5);
	40 CFR 63.6(c)(1);
	40 CFR 63.6(c)(2);
	40 CFR 63.6(e)(1);
	40 CFR 63.6(f)(2);
	40 CFR 63.6(f)(3);
	40 CFR 63.6(g);
	40 CFR 63.6(i)(1);
	40 CFR 63.6(i)(2);
	40 CFR 63.6(i)(3);
	40 CFR 63.6(i)(4);
	40 CFR 63.6(i)(5);
	40 CFR 63.6(i)(6);
	40 CFR 63.6(i)(8);
	40 CFR 63.6(i)(9);
	40 CFR 63.6(i)(11);
	40 CFR 63.6(j);
	40 CFR 63.7(a)(3);
	40 CFR 63.7(a)(4);
	40 CFR 63.7(b);
	40 CFR 63.7(c);
	40 CFR 63.7(d);
	40 CFR 63.7(f);
	40 CFR 63.7(g);
	40 CFR 63.7(h);
	40 CFR 63.8(b)(1);
	40 CFR 63.8(b)(2);
	40 CFR 63.8(b)(3);
	40 CFR 63.8(c);
	40 CFR 63.8(d);
	40 CFR 63.8(e);
	40 CFR 63.8(f);

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	40 CFR 63.8(g); 40 CFR 63.9(b)(1); 40 CFR 63.9(b)(2); 40 CFR 63.9(b)(4); 40 CFR 63.9(b)(5); 40 CFR 63.9(c); 40 CFR 63.9(d); 40 CFR 63.9(e); 40 CFR 63.9(f); 40 CFR 63.9(g); 40 CFR 63.9(h); 40 CFR 63.9(i); 40 CFR 63.9(j); 40 CFR 63.9(k); 40 CFR 63.10(a)(5); 40 CFR 63.10(a)(6); 40 CFR 63.10(a)(7); 40 CFR 63.10(b)(1); 40 CFR 63.10(b)(2)(iii); 40 CFR 63.10(b)(2)(vi)-(viii); 40 CFR 63.10(b)(2)(ix); 40 CFR 63.10(b)(2)(x); 40 CFR 63.10(b)(2)(xi); 40 CFR 63.10(b)(2)(xii); 40 CFR 63.10(b)(2)(xiv); 40 CFR 63.10(b)(3); 40 CFR 63.10(c); 40 CFR 63.10(d)(1); 40 CFR 63.10(d)(2); 40 CFR 63.10(d)(4); 40 CFR 63.10(e); 40 CFR 63.10(f); 40 CFR 63.12; 40 CFR 63.13; 40 CFR 63.14; 40 CFR 63.15(a); and 40 CFR 63.15(b). A copy of 40 CFR pt. 63, subp. A is included in Appendix H. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. A, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.0050, subp. 1(B), Minn. R. 7017.1010 & 7017.2025, Minn. R. 7019.0100]
5.116.23	Bypass Event: During any period in which a bypass stack is open, the Permittee is prohibited from feeding greenballs/pellets to EQU 146 and fuel use is limited to natural gas. [Minn. R. 7007.0800, subp. 2(A)]
5.116.24	Bypass Event Recordkeeping: The Permittee shall record the following each time a bypass event occurs;

Requirement number	Requirement and citation
	- Beginning date and time of event - End date and time of event - Duration of event (min) - Reason for bypass event - Fuel type combusted during event - Greenball/pellet feed rate during event. [Minn. R. 7007.0800, subps. 4-5]
5.116.25	Fuel Sampling: The Permittee shall obtain and maintain a fuel supplier certification of the sulfur weight percent and heating value for each shipment of liquid or solid fuel. In absence of fuel certification, the Permittee shall sample liquid or solid fuel after each delivery but not more than once each calendar week, when multiple deliveries are made. Current ASTM method(s) must be used to determine sulfur content in percent by weight and fuel heating value. The Permittee shall maintain records of fuel deliveries and analysis results. [Minn. R. 7007.0800, subps. 4-5]
EQUI 147	L3 Cooler Discharge
5.117.1	The Permittee shall vent emissions from EQUI 147 to control equipment meeting the requirements of TREA 174 whenever EQUI 147 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.117.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.117.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 148	L3 041/046 Conveyor Belt Vent
5.118.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.118.2	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 149	S1 Conveyor Transfer 042-043
5.119.1	The Permittee shall vent emissions from EQUI 149 to control equipment meeting the requirements of TREA 176 whenever EQUI 149 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.119.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.119.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 150	L3 Conveyor Transfer 041-042
5.120.1	The Permittee shall vent emissions from EQUI 150 to control equipment meeting the requirements of TREA 177 whenever EQUI 150 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.120.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.120.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 151	S1 Bentonite Storage Bin
5.121.1	The Permittee shall vent emissions from EQUI 151 to control equipment meeting the requirements of TREA 97 whenever EQUI 151 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.121.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]

Requirement number	Requirement and citation
5.121.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 152	L2,3 Bentonite Day Bin
5.122.1	The Permittee shall vent emissions from EQUI 152 to control equipment meeting the requirements of TREA 98 whenever EQUI 152 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.122.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.122.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 153	L2,3 Bentonite Day Bin
5.123.1	The Permittee shall vent emissions from EQUI 153 to control equipment meeting the requirements of TREA 98 whenever EQUI 153 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.123.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.123.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 154	S2 Bentonite Storage Bin
5.124.1	The Permittee shall vent emissions from EQUI 154 to control equipment meeting the requirements of TREA 100 whenever EQUI 154 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.124.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.124.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 155	L4 Bentonite Day Bins
5.125.1	The Permittee shall vent emissions from EQUI 155 to control equipment meeting the requirements of TREA 101 whenever EQUI 155 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.125.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.125.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 156	L4 Bentonite Day Bins
5.126.1	The Permittee shall vent emissions from EQUI 156 to control equipment meeting the requirements of TREA 101 whenever EQUI 156 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.126.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.126.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 157	L4 Bentonite Blending
5.127.1	The Permittee shall vent emissions from EQUI 157 to control equipment meeting the requirements of

Requirement number	Requirement and citation
	TREA 102 whenever EQUI 157 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.127.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.127.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 158	L4 Bentonite Blending
5.128.1	The Permittee shall vent emissions from EQUI 158 to control equipment meeting the requirements of TREA 102 whenever EQUI 158 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.128.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.128.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 159	L4 Grate Feed
5.129.1	The Permittee shall vent emissions from EQUI 159 to control equipment meeting the requirements of TREA 103 whenever EQUI 159 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.129.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.129.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 164	S3 Conveyor Transfer
5.130.1	The Permittee shall vent emissions from EQUI 164 to control equipment meeting the requirements of TREA 134 whenever EQUI 164 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.130.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.130.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 165	S3 Bentonite Storage
5.131.1	The Permittee shall vent emissions from EQUI 165 to control equipment meeting the requirements of TREA 135 whenever EQUI 165 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.131.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.131.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 166	L6 Bentonite Day Bin
5.132.1	The Permittee shall vent emissions from EQUI 166 to control equipment meeting the requirements of TREA 136 whenever EQUI 166 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.132.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.132.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]

Requirement number	Requirement and citation
EQUI 167	L6 Bentonite Day Bin
5.133.1	The Permittee shall vent emissions from EQUI 167 to control equipment meeting the requirements of TREA 136 whenever EQUI 167 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.133.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.133.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 168	L6 Bentonite Blending
5.134.1	The Permittee shall vent emissions from EQUI 168 to control equipment meeting the requirements of TREA 137 whenever EQUI 168 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.134.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.134.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 169	L7 Bentonite Day Bin
5.135.1	The Permittee shall vent emissions from EQUI 169 to control equipment meeting the requirements of TREA 130 whenever EQUI 169 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.135.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.135.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 170	Storage Bin L9,10
5.136.1	The Permittee shall vent emissions from EQUI 170 to control equipment meeting the requirements of TREA 192 whenever EQUI 170 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.136.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.136.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 171	Storage Bin L11,12
5.137.1	The Permittee shall vent emissions from EQUI 171 to control equipment meeting the requirements of TREA 193 whenever EQUI 171 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.137.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.137.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 172	Storage Bin L11,12
5.138.1	The Permittee shall vent emissions from EQUI 172 to control equipment meeting the requirements of TREA 193 whenever EQUI 172 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.138.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]

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5.138.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 173	Conveyor Transfer 009-020
5.139.1	The Permittee shall vent emissions from EQUI 173 to control equipment meeting the requirements of TREA 86 whenever EQUI 173 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.139.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.139.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 174	Storage Bin L13,14
5.140.1	The Permittee shall vent emissions from EQUI 174 to control equipment meeting the requirements of TREA 218 whenever EQUI 174 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.140.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.140.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 175	L7 Bentonite Day Bin
5.141.1	The Permittee shall vent emissions from EQUI 175 to control equipment meeting the requirements of TREA 130 whenever EQUI 175 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.141.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.141.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 176	L7 Bentonite Blending
5.142.1	The Permittee shall vent emissions from EQUI 176 to control equipment meeting the requirements of TREA 145 whenever EQUI 176 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.142.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.142.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 177	L7 Bentonite Blending
5.143.1	The Permittee shall vent emissions from EQUI 177 to control equipment meeting the requirements of TREA 145 whenever EQUI 177 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.143.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.143.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 178	L7 Grate Discharge
5.144.1	The Permittee shall vent emissions from EQUI 178 to control equipment meeting the requirements of

Requirement number	Requirement and citation
	TREA 147 whenever EQUI 178 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.144.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.144.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 179	L7 Rotary Kiln
5.145.1	The Permittee shall vent emissions from EQUI 179 to control equipment meeting the requirements of TREA 151 whenever EQUI 179 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
5.145.2	Fuel Restrictions: The Permittee shall combust at the kiln burner natural gas, coal, fuel oil, and/or types of biomass that are specified in Appendix N of this permit; and at the preheat burners natural gas. Other fuels, as allowed under 40 CFR Part 241, may be combusted for a short period of time during a trial burn as specified and approved by a major amendment to this permit. [Minn. R. 7007.0800, subp. 2, Title I Condition: 40 CFR 52.21(j)(BACT) and Minn. R. 7007.3000]
5.145.3	Fluorides <= 1.62 pounds per hour 3-hour average. [Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
5.145.4	Carbon Monoxide <= 74.0 pounds per hour 3-hour average. [Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
5.145.5	Volatile Organic Compounds <= 54.3 pounds per hour 3-hour average. [Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
5.145.6	Opacity <= 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity. [Minn. R. 7011.0610, subp. 1(A)(2)]
5.145.7	Sulfur Dioxide <= 4.0 pounds per million Btu heat input when burning solid fossil fuels or 2.0 pounds per million Btu heat input when burning liquid fuels. If more than one fuel is burned simultaneously, calculate the emission limit as indicated in Minn. R. 7011.0605. [Minn. R. 7011.0610, subp. 2]
5.145.8	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0610, subp. 1(A)(1)]
5.145.9	The Permittee shall keep records of fuel purchases showing fuel types. [Minn. R. 7007.0800, subp. 2, Title I Condition: 40 CFR 52.21(j)(BACT) and Minn. R. 7007.3000]
5.145.10	Temperature >= 1400 degrees Fahrenheit 3-hour rolling average monitored at the kiln exit. This limit does not apply during EQUI 179 startup or shutdown. If the 3-hour rolling average operating temperature is below the minimum temperature limit, this must be reported as a deviation. [Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
5.145.11	Kiln exit temperature continuous monitoring. The Permittee must install, maintain, and operate at all times a temperature monitoring device(s) at the kiln exit. A minimum of one thermocouple shall be installed at the kiln exit. Each temperature monitoring device shall be certified by the manufacturer to have an accuracy of +/-5% over its operating range. The temperature monitoring device shall be operated continuously, and data recorded during all periods of operation. Continuously is defined as determining at least one data point in each 15-minute time interval. [Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
5.145.12	The Permittee must maintain a continuous hard copy readout or computer disk file of the temperature readings and calculated 3-hour rolling average temperature at the kiln exit. [Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
5.145.13	Burner and grate inspections. The Permittee must inspect the kiln and grate burners every 18 months. Each inspection must be conducted no more than 18 months after the previous inspection. The

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	inspection must verify at a minimum: -proper alignment of kiln burners and grate burners; and -good operating condition of combustion air fans for the kiln burners and grate burners. The Permittee must keep a written record of the inspection and any action resulting from the inspection. [Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
5.145.14	The Permittee must limit Filterable Particulate Matter ≤ 0.01 grains per dry standard cubic foot 3-hour average measured as a flow-weighted mean concentration for all stacks from the indurating furnace. The Permittee must determine the flow-weighted mean concentration of front-half particulate matter emissions following the procedures in 40 CFR Section 63.9621(c). [40 CFR 63.9590(a), 40 CFR 63.9621(c), 40 CFR 63.9634(c)(1), 40 CFR pt. 63, subp. RRRRR(Table 1)(Item 3)Existing, Minn. R. 7011.8030]
5.145.15	The Permittee must limit Mercury ≤ 0.000014 pound per long ton of pellets produced by March 8, 2027. Under authority provided in Section 112(i)(4) of the Clean Air Act (42 U.S.C. 7412(i)(4)) and according to Proclamation 10958 of July 17, 2025, the Permittee is exempt from compliance with the May 6, 2024, amendments to 40 CFR pt. 63, subp. RRRRR (89 FR 16408) (Taconite MACT amendments) for a period of two years beyond the Taconite MACT amendments' relevant compliance dates. This exemption applies to all compliance deadlines established under the Taconite MACT amendments, with each such deadline extended by two years from the date originally required for such deadline. The effect of this exemption is that, during each such 2-year period, the Permittee is subject to the emissions and compliance obligations that they are currently subject to under 40 CFR pt. 63, subp. RRRRR as that standard existed prior to the Taconite MACT amendments. A copy of the presidential proclamation, as published in the Federal Register on July 23, 2025 (90 FR 34743), is included in Appendix O. [40 CFR 63.4(a)(1), 40 CFR 63.6(j), 40 CFR 63.6(a)(1)(ii), 40 CFR 63.9583(f)(1), 40 CFR 63.9590(a), 40 CFR pt. 63, subp. RRRRR(Table 2)(Item 1), Minn. R. 7011.8030]
5.145.16	The Permittee must limit Hydrogen Chloride ≤ 0.046 pound per long ton of pellets produced by March 8, 2027. Under authority provided in Section 112(i)(4) of the Clean Air Act (42 U.S.C. 7412(i)(4)) and according to Proclamation 10958 of July 17, 2025, the Permittee is exempt from compliance with the May 6, 2024, amendments to 40 CFR pt. 63, subp. RRRRR (89 FR 16408) (Taconite MACT amendments) for a period of two years beyond the Taconite MACT amendments' relevant compliance dates. This exemption applies to all compliance deadlines established under the Taconite MACT amendments, with each such deadline extended by two years from the date originally required for such deadline. The effect of this exemption is that, during each such 2-year period, the Permittee is subject to the emissions and compliance obligations that they are currently subject to under 40 CFR pt. 63, subp. RRRRR as that standard existed prior to the Taconite MACT amendments. A copy of the presidential proclamation, as published in the Federal Register on July 23, 2025 (90 FR 34743), is included in Appendix O. [40 CFR 63.4(a)(1), 40 CFR 63.6(j), 40 CFR 63.6(a)(1)(ii), 40 CFR 63.9583(f)(1), 40 CFR 63.9590(a), 40 CFR pt. 63, subp. RRRRR(Table 3)(Item 1), Minn. R. 7011.8030]
5.145.17	The Permittee must limit Hydrogen fluoride ≤ 0.012 pound per long ton of pellets produced by March 8, 2027. Under authority provided in Section 112(i)(4) of the Clean Air Act (42 U.S.C. 7412(i)(4)) and according to Proclamation 10958 of July 17, 2025, the Permittee is exempt from compliance with the May 6, 2024, amendments to 40 CFR pt. 63, subp. RRRRR (89 FR 16408) (Taconite MACT amendments) for a period of two years beyond the Taconite MACT amendments' relevant compliance dates. This exemption applies to all compliance deadlines established under the Taconite MACT amendments,

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	with each such deadline extended by two years from the date originally required for such deadline. The effect of this exemption is that, during each such 2-year period, the Permittee is subject to the emissions and compliance obligations that they are currently subject to under 40 CFR pt. 63, subp. RRRRR as that standard existed prior to the Taconite MACT amendments. A copy of the presidential proclamation, published in the Federal Register on July 23, 2025 (90 FR 34743), is included in Appendix O. [40 CFR 63.6(j), 40 CFR 63.6(a)(1)(ii), 40 CFR 63.9583(f)(1), 40 CFR 63.9590(a), 40 CFR 63.a(1), 40 CFR pt. 63, subp. RRRRR(Table 3)(Item 1), Minn. R. 7011.8030]
5.145.18	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9581; 40 CFR 63.9582(a)-(d); 40 CFR 63.9583(a),(e), & (f); 40 CFR 63.9590(a); 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(4); 40 CFR 63.9610(a),(c) & (d); 40 CFR 63.9621(a) & (c); 40 CFR 63.9623(a)(5)-(8); 40 CFR 63.9630(b); 40 CFR 63.9633; 40 CFR 63.9634(a) & (c); 40 CFR 63.9636(a)(4); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9640(a)-(d) & (e); 40 CFR 63.9641(a)-(h); 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; 40 CFR 63.9650; 40 CFR 63.9652; 40 CFR pt. 63, subp. RRRRR, Table 1, Item 3 (Existing); 40 CFR pt. 63, subp. RRRRR, Table 2, Item 1(1)(individual limit); 40 CFR pt. 63, subp. RRRRR, Table 3, Item 1; and 40 CFR pt. 63, subp. RRRRR, Table 4, as specified elsewhere in this permit. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. Under authority provided in Section 112(i)(4) of the Clean Air Act (42 U.S.C. 7412(i)(4)) and according to Proclamation 10958 of July 17, 2025, the Permittee is exempt from compliance with the May 6, 2024, amendments to 40 CFR pt. 63, subp. RRRRR (89 FR 16408) (Taconite MACT amendments) for a period of two years beyond the Taconite MACT amendments' relevant compliance dates. This exemption applies to all compliance deadlines established under the Taconite MACT amendments, with each such deadline extended by two years from the date originally required for such deadline. The effect of this exemption is that, during each such 2-year period, the Permittee is subject to the emissions and compliance obligations that they are currently subject to under 40 CFR pt. 63, subp.

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	RRRRR as that standard existed prior to the Taconite MACT amendments. A copy of the presidential proclamation, as published in the Federal Register on July 23, 2025 (90 FR 34743), is included in Appendix O. [40 CFR 63.4(a)(1), 40 CFR 63.6(j), 40 CFR 63.6(a)(1)(ii), 40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.145.19	In addition to the other applicable requirements from 40 CFR pt. 63, subp. RRRRR found elsewhere in this permit, to demonstrate compliance with the hydrogen chloride and hydrogen fluoride emission limits in Table 3 of 40 CFR pt. 63, subp. RRRRR, the Permittee must: - meet the applicable hydrogen chloride and hydrogen fluoride emission limits in Table 3 of 40 CFR pt. 63, subp. RRRRR by March 8, 2027; - meet the applicable operating limits for control devices used to meet the applicable hydrogen chloride and hydrogen fluoride emission limits; - conduct initial performance tests for hydrogen chloride and hydrogen fluoride on all stacks associated with each indurating furnace no later than 180 calendar days after March 8, 2027, in accordance with 40 CFR 63.9620(l); - determine compliance with the applicable hydrogen chloride and hydrogen fluoride emission limits by following the applicable test methods and procedures in 40 CFR 63.9621(d)(1) through (9); - submit a site-specific monitoring plan in accordance with 40 CFR 63.9631(i), if applicable; - establish applicable site-specific operating limits according to the procedures in 40 CFR 63.9622(g) and (i); - demonstrate initial compliance in accordance with 40 CFR 63.9623(c)(1) and (3); - conduct subsequent performance test in accordance with 40 CFR 63.9630(b); - install, operate, and maintain a continuous parameter monitoring system and monitor the applicable operating parameters, in accordance with 40 CFR 63.9631(f) and (h); - develop and make available for inspection upon request a site-specific monitoring plan that addresses the requirements in 40 CFR 63.9632(b)(1) through (7); - must meet the requirements for each CPMS in 40 CFR 63.9632(c)(1) and (2); - must conduct a performance evaluation of each CPMS and maintain the CPMS in continuous operation in accordance with your site-specific monitoring plan; - meet the applicable requirements for continuous parameter monitoring systems in 40 CFR 63.9632(g) through (i); - demonstrate continuous compliance in accordance with the applicable requirements of 40 CFR 63.9634(i)(1) and (2), (k), and (l); - demonstrate continuous compliance with the operation and maintenance requirements by completing the applicable requirements of 40 CFR 63.9636(a)(1) through (4); - submit a notification of compliance status in accordance with 40 CFR 63.9640(e); and - keep all applicable records listed in 40 CFR 63.9642. Under authority provided in Section 112(i)(4) of the Clean Air Act (42 U.S.C. 7412(i)(4)) and according to Proclamation 10958 of July 17, 2025, the Permittee is exempt from compliance with the May 6, 2024, amendments to 40 CFR pt. 63, subp. RRRRR (89 FR 16408) (Taconite MACT amendments) for a period of two years beyond the Taconite MACT amendments' relevant compliance dates. This exemption applies to all compliance deadlines established under the Taconite MACT amendments, with each such deadline extended by two years from the date originally required for such deadline. The effect of this exemption is that, during each such 2-year period, the Permittee is subject to the emissions and compliance obligations that they are currently subject to under 40 CFR pt. 63, subp. RRRRR as that standard existed prior to the Taconite MACT amendments. A copy of the presidential proclamation, as published in the Federal Register on July 23, 2025 (90 FR 34743), is included in Appendix O. [40 CFR 63.4(a)(1), 40 CFR 63.6(j), 40 CFR 63.6(a)(1)(ii), 40 CFR pt. 63, subp. RRRRR, Minn. R. 7011.8030]
5.145.20	In addition to the other applicable requirements from 40 CFR pt. 63, subp. RRRRR found elsewhere in this permit, if the Permittee elects not to demonstrate compliance with the mercury emission limit

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	using a mercury CEMS, the Permittee must: - meet the applicable mercury emission limit in Table 2 of 40 CFR pt. 63, subp. RRRRR by March 8, 2027; - meet the applicable operating limits for control devices used to meet the applicable mercury emission limit; - conduct initial performance tests for mercury on all stacks associated with each indurating furnace no later than 180 calendar days after March 8, 2027, in accordance with 40 CFR 63.9620(k)(1); - determine compliance with the applicable mercury emission limit by following the applicable test methods and procedures in 40 CFR 63.9621(d)(1) through (9); - submit a site-specific monitoring plan in accordance with 40 CFR 63.9631(i), if applicable; - establish applicable site-specific operating limits according to the procedures in 40 CFR 63.9622(h); - demonstrate initial compliance in accordance with 40 CFR 63.9623(c)(2); - conduct subsequent performance test in accordance with 40 CFR 63.9630(b); - install, operate, and maintain a continuous parameter monitoring system and monitor the applicable operating parameters, in accordance with 40 CFR 63.9631(g) and (j); - develop and make available for inspection upon request a site-specific monitoring plan that addresses the requirements in 40 CFR 63.9632(b)(1) through (7); - must meet the requirements for each CPMS in 40 CFR 63.9632(c)(1) and (2); - must conduct a performance evaluation of each CPMS and maintain the CPMS in continuous operation in accordance with your site-specific monitoring plan; - meet the applicable requirements for continuous parameter monitoring systems in 40 CFR 63.9632(h) and (i); - demonstrate continuous compliance in accordance with the applicable requirements of 40 CFR 63.9634(j)(1) and (2), (k), (l), and (n); - demonstrate continuous compliance with the operation and maintenance requirements by completing the applicable requirements of 40 CFR 63.9636(a)(1) through (4); - submit a notification of compliance status in accordance with 40 CFR 63.9640(e); and - keep all applicable records listed in 40 CFR 63.9642. Under authority provided in Section 112(i)(4) of the Clean Air Act (42 U.S.C. 7412(i)(4)) and according to Proclamation 10958 of July 17, 2025, the Permittee is exempt from compliance with the May 6, 2024, amendments to 40 CFR pt. 63, subp. RRRRR (89 FR 16408) (Taconite MACT amendments) for a period of two years beyond the Taconite MACT amendments' relevant compliance dates. This exemption applies to all compliance deadlines established under the Taconite MACT amendments, with each such deadline extended by two years from the date originally required for such deadline. The effect of this exemption is that, during each such 2-year period, the Permittee is subject to the emissions and compliance obligations that they are currently subject to under 40 CFR pt. 63, subp. RRRRR as that standard existed prior to the Taconite MACT amendments. A copy of the presidential proclamation, as published in the Federal Register on July 23, 2025 (90 FR 34743), is included in Appendix O. [40 CFR 63.4(a)(1), 40 CFR 63.6(j), 40 CFR 63.6(a)(1)(ii), 40 CFR pt. 63, subp. RRRRR, Minn. R. 7011.8030]
5.145.21	In addition to the other applicable requirements from 40 CFR pt. 63, subp. RRRRR found elsewhere in this permit, if the Permittee elects to demonstrate compliance with the mercury emission limit using a mercury CEMS, the Permittee is not required by 40 CFR pt. 63, subp. RRRRR to conduct performance testing for mercury or to establish and comply with operating limits for control devices used to reduce mercury emissions, and the Permittee must: - conduct a performance evaluation of each CEMS within 180 days of installation of the monitoring system, in accordance with 40 CFR 63.9620(k)(2); - determine compliance with the applicable mercury emission limit by using a 30-day rolling average of the 1-hour arithmetic average CEMS data, including CEMS data during startup and shutdown, in accordance with 40 CFR 63.9621(e);

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	- calculate the 30-day rolling average of 1-hour arithmetic average emission concentrations, including CEMS data during startup and shutdown, in accordance with 40 CFR 63.9623(e); - comply with the requirements in 40 CFR 63.9631(k)(1)-(5); - comply with the requirements if 40 CFR 63.9634(j)(1); - must submit the results of the performance evaluation following the procedure specified in either 40 CFR 63.9641(i)(1) or (2) within 60 days after the date of completing each CEMS performance evaluation; - keep the applicable records specified in 40 CFR 63.9642(b)(1) through (5); and - keep records of the notifications required in 40 CFR 63.9642(f). Under authority provided in Section 112(i)(4) of the Clean Air Act (42 U.S.C. 7412(i)(4)) and according to Proclamation 10958 of July 17, 2025, the Permittee is exempt from compliance with the May 6, 2024, amendments to 40 CFR pt. 63, subp. RRRRR (89 FR 16408) (Taconite MACT amendments) for a period of two years beyond the Taconite MACT amendments' relevant compliance dates. This exemption applies to all compliance deadlines established under the Taconite MACT amendments, with each such deadline extended by two years from the date originally required for such deadline. The effect of this exemption is that, during each such 2-year period, the Permittee is subject to the emissions and compliance obligations that they are currently subject to under 40 CFR pt. 63, subp. RRRRR as that standard existed prior to the Taconite MACT amendments. A copy of the presidential proclamation, as published in the Federal Register on July 23, 2025 (90 FR 34743), is included in Appendix O. [40 CFR 63.4(a)(1), 40 CFR 63.6(j), 40 CFR 63.6(a)(1)(ii), 40 CFR pt. 63, subp. RRRRR, Minn. R. 7011.8030]
5.145.22	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. A as follows: 40 CFR 63.1(a); 40 CFR 63.1(b)(1); 40 CFR 63.1(b)(3); 40 CFR 63.1(c)(1); 40 CFR 63.1(c)(2); 40 CFR 63.1(c)(6); 40 CFR 63.2; 40 CFR 63.3; 40 CFR 63.4(a); 40 CFR 63.4(b); 40 CFR 63.4(c); 40 CFR 63.5(a); 40 CFR 63.5(b); 40 CFR 63.5(d); 40 CFR 63.5(e); 40 CFR 63.5(f); 40 CFR 63.6(a)(1); 40 CFR 63.6(b)(1); 40 CFR 63.6(b)(2); 40 CFR 63.6(b)(3); 40 CFR 63.6(b)(4); 40 CFR 63.6(b)(5); 40 CFR 63.6(c)(1); 40 CFR 63.6(c)(2); 40 CFR 63.6(e)(1); 40 CFR 63.6(f)(2); 40 CFR 63.6(f)(3);

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	40 CFR 63.6(g);
	40 CFR 63.6(i)(1);
	40 CFR 63.6(i)(2);
	40 CFR 63.6(i)(3);
	40 CFR 63.6(i)(4);
	40 CFR 63.6(i)(5);
	40 CFR 63.6(i)(6);
	40 CFR 63.6(i)(8);
	40 CFR 63.6(i)(9);
	40 CFR 63.6(i)(11);
	40 CFR 63.6(j);
	40 CFR 63.7(a)(3);
	40 CFR 63.7(a)(4);
	40 CFR 63.7(b);
	40 CFR 63.7(c);
	40 CFR 63.7(d);
	40 CFR 63.7(f);
	40 CFR 63.7(g);
	40 CFR 63.7(h);
	40 CFR 63.8(b)(1);
	40 CFR 63.8(b)(2);
	40 CFR 63.8(b)(3);
	40 CFR 63.8(c);
	40 CFR 63.8(d);
	40 CFR 63.8(e);
	40 CFR 63.8(f);
	40 CFR 63.8(g);
	40 CFR 63.9(b)(1);
	40 CFR 63.9(b)(2);
	40 CFR 63.9(b)(4);
	40 CFR 63.9(b)(5);
	40 CFR 63.9(c);
	40 CFR 63.9(d);
	40 CFR 63.9(e);
	40 CFR 63.9(f);
	40 CFR 63.9(g);
	40 CFR 63.9(h);
	40 CFR 63.9(i);
	40 CFR 63.9(j);
	40 CFR 63.9(k);
	40 CFR 63.10(a)(5);
	40 CFR 63.10(a)(6);
	40 CFR 63.10(a)(7);
	40 CFR 63.10(b)(1);
	40 CFR 63.10(b)(2)(iii);
	40 CFR 63.10(b)(2)(vi)-(viii);
	40 CFR 63.10(b)(2)(ix);
	40 CFR 63.10(b)(2)(x);
	40 CFR 63.10(b)(2)(xi);
	40 CFR 63.10(b)(2)(xii);
	40 CFR 63.10(b)(2)(xiv);

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	40 CFR 63.10(b)(3); 40 CFR 63.10(c); 40 CFR 63.10(d)(1); 40 CFR 63.10(d)(2); 40 CFR 63.10(d)(4); 40 CFR 63.10(e); 40 CFR 63.10(f); 40 CFR 63.12; 40 CFR 63.13; 40 CFR 63.14; 40 CFR 63.15(a); and 40 CFR 63.15(b). A copy of 40 CFR pt. 63, subp. A is included in Appendix H. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. A, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.0050, subp. 1(B), Minn. R. 7017.1010 & 7017.2025, Minn. R. 7019.0100]
5.145.23	Bypass Event: During any period in which a bypass stack is open, the Permittee is prohibited from feeding greenballs/pellets to EQU 179 and fuel use is limited to natural gas. [Minn. R. 7007.0800, subp. 2(A)]
5.145.24	Bypass Event Recordkeeping: The Permittee shall record the following each time a bypass event occurs; - Beginning date and time of event - End date and time of event - Duration of event (min) - Reason for bypass event - Fuel type combusted during event - Greenball/pellet feed rate during event. [Minn. R. 7007.0800, subps. 4-5]
5.145.25	Fuel Sampling: The Permittee shall obtain and maintain a fuel supplier certification of the sulfur weight percent and heating value for each shipment of liquid or solid fuel. In absence of fuel certification, the Permittee shall sample liquid or solid fuel after each delivery but not more than once each calendar week, when multiple deliveries are made. Current ASTM method(s) must be used to determine sulfur content in percent by weight and fuel heating value. The Permittee shall maintain records of fuel deliveries and analysis results. [Minn. R. 7007.0800, subps. 4-5]
EQUI 180	Step III 042 Conveyor Vent
5.146.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.146.2	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 181	Step III 043 Conveyor Vent
5.147.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.147.2	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 182	Step III 044 Conveyor Vent

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5.148.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.148.2	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 183	Step III 044 Conveyor Vent
5.149.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.149.2	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 184	Step III 044 Conveyor Vent
5.150.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.150.2	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 185	Step III 044 Conveyor Vent
5.151.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.151.2	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 186	Step III 044 Conveyor Vent
5.152.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.152.2	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 187	Step III 044 Conveyor Vent
5.153.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.153.2	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 188	Step III 043/044 Conveyor Transfer
5.154.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.154.2	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 189	Step III 043/044 Conveyor Transfer
5.155.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.155.2	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 190	Step III 044-6/044-7 Conveyor Transfer
5.156.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.156.2	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]

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EQUI 191	Step III 044-6/044-7 Conveyor Transfer
5.157.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.157.2	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 196	SI 104 MMBtu Heating Boiler
5.158.1	Filterable Particulate Matter <= 0.6 pounds per million Btu heat input. The potential to emit from the unit is 0.016 lb/MMBtu due to equipment design and allowable fuels. [Minn. R. 7011.0510, subp. 1]
5.158.2	Opacity <= 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity. [Minn. R. 7011.0510, subp. 2]
5.158.3	Sulfur Dioxide <= 2.0 pounds per million Btu heat input. The potential to emit from the unit is 0.615 lb/MMBtu due to equipment design and allowable fuels. [Minn. R. 7011.0510, subp. 1]
5.158.4	Fuel type: Natural gas, propane, or No. 2 fuel oil only. [Minn. R. 7005.0100, subp. 35a]
5.158.5	Operating Hours <= 48 hours per year (calendar year basis) using liquid fuels for periodic testing of liquid fuel, maintenance, or operator training; except during periods of gas curtailment or gas supply interruptions of any duration. Liquid fuel may be used during periods of gas curtailment or interruption of any duration. [Minn. R. 7007.0800, subp. 2(A)]
5.158.6	The Permittee shall keep records of fuel purchases showing fuel types. [Minn. R. 7007.0800, subp. 5]
5.158.7	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. A as follows: 40 CFR 63.1(a), (b)(1), (b)(3), (c)(1)-(2), (c)(5)-(6), and (e); 40 CFR 63.2; 40 CFR 63.3; 40 CFR 63.4(a)-(c); 40 CFR 63.5(a)-(b) and (d)-(f); 40 CFR 63.6(a)(1)-(2), (b)(1)-(7), (c)(1)-(2), (c)(5), (f)(2)-(3), (g), (i)(1)-(11), and (j); 40 CFR 63.7(a)(2)(ix), (a)(3)-(4), (b)-(d), and (f)-(h); 40 CFR 63.8(b)(1)-(3), and (c)-(g); 40 CFR 63.9(b)(1)-(5), (c)-(k); 40 CFR 63.10(a)(5)-(7), (b)(1), (b)(2)(i), (b)(2)(iii), (b)(2)(vi)-(viii), (b)(2)(ix)-(xiv), (c), (d)(1), (d)(2), (d)(4), (e), and (f); 40 CFR 63.12; 40 CFR 63.13; 40 CFR 63.14; 40 CFR 63.15(a)-(b); and 40 CFR 63.16. A copy of 40 CFR pt. 63, subp. A is included in Appendix C. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. A, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.0050, subp. 1(B), Minn. R. 7017.1010 & 7017.2025, Minn. R. 7019.0100]
5.158.8	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. DDDDD, as follows:

Requirement number	Requirement and citation
	40 CFR 63.7480; 40 CFR 63.7485; 40 CFR 63.7490(a)(1); 40 CFR 63.7490(d); 40 CFR 63.7495(b); 40 CFR 63.7495(d); 40 CFR 63.7499(l); 40 CFR 63.7500(a); 40 CFR 63.7500(a)(1); 40 CFR 63.7500(a)(3); 40 CFR 63.7500(b); 40 CFR 63.7505(a); 40 CFR 63.7515(d); 40 CFR 63.7540(a); 40 CFR 63.7540(a)(10); 40 CFR 63.7540(a)(12); 40 CFR 63.7540(a)(13); 40 CFR 63.7540(b); 40 CFR 63.7545(a); 40 CFR 63.7545(f); 40 CFR 63.7545(h); 40 CFR 63.7550(a); 40 CFR 63.7550(b); 40 CFR 63.7550(c); 40 CFR 63.7550(c)(1); 40 CFR 63.7550(c)(5)(i)-(iii), (xiv), and (xvii); 40 CFR 63.7550(h)(3); 40 CFR 63.7555(a)(1); 40 CFR 63.7555(h); 40 CFR 63.7560; 40 CFR 63.7565; 40 CFR 63.7570; 40 CFR 63.7575; 40 CFR pt. 63, subp. DDDDD, Table 3, item 1; 40 CFR pt. 63, subp. DDDDD, Table 9; and 40 CFR pt. 63, subp. DDDDD, Table 10. A copy of 40 CFR pt. 63, subp. DDDDD is included in Appendix K. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than 3 years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. DDDDD, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.7050]
EQUI 197	SI 104 MMBtu Heating Boiler
5.159.1	Filterable Particulate Matter <= 0.6 pounds per million Btu heat input. The potential to emit from the unit is 0.016 lb/MMBtu due to equipment design and allowable fuels. [Minn. R. 7011.0510, subp. 1]
5.159.2	Opacity <= 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity. [Minn. R. 7011.0510, subp. 2]
5.159.3	Sulfur Dioxide <= 2.0 pounds per million Btu heat input. The potential to emit from the unit is 0.61

Requirement number	Requirement and citation
	lb/MMBtu due to equipment design and allowable fuels. [Minn. R. 7011.0510, subp. 1]
5.159.4	Fuel type: Natural gas, propane or No. 2 fuel oil only. [Minn. R. 7005.0100, subp. 35a]
5.159.5	Operating Hours <= 48 hours per year (calendar year basis) using liquid fuels for periodic testing of liquid fuel, maintenance, or operator training; except during periods of gas curtailment or gas supply interruptions of any duration. Liquid fuel may be used during periods of gas curtailment or interruption of any duration. [Minn. R. 7007.0800, subp. 2(A)]
5.159.6	The Permittee shall keep records of fuel purchases showing fuel types. [Minn. R. 7007.0800, subp. 5]
5.159.7	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. A as follows: 40 CFR 63.1(a), (b)(1), (b)(3), (c)(1)-(2), (c)(5)-(6), and (e); 40 CFR 63.2; 40 CFR 63.3; 40 CFR 63.4(a)-(c); 40 CFR 63.5(a)-(b) and (d)-(f); 40 CFR 63.6(a)(1)-(2), (b)(1)-(7), (c)(1)-(2), (c)(5), (f)(2)-(3), (g), (i)(1)-(11), and (j); 40 CFR 63.7(a)(2)(ix), (a)(3)-(4), (b)-(d), and (f)-(h); 40 CFR 63.8(b)(1)-(3), and (c)-(g); 40 CFR 63.9(b)(1)-(5), (c)-(k); 40 CFR 63.10(a)(5)-(7), (b)(1), (b)(2)(i), (b)(2)(iii), (b)(2)(vi)-(viii), (b)(2)(ix)-(xiv), (c), (d)(1), (d)(2), (d)(4), (e), and (f); 40 CFR 63.12; 40 CFR 63.13; 40 CFR 63.14; 40 CFR 63.15(a)-(b); and 40 CFR 63.16. A copy of 40 CFR pt. 63, subp. A is included in Appendix C. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. A, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.0050, subp. 1(B), Minn. R. 7017.1010 & 7017.2025, Minn. R. 7019.0100]
5.159.8	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. DDDDD, as follows: 40 CFR 63.7480; 40 CFR 63.7485; 40 CFR 63.7490(a)(1); 40 CFR 63.7490(d); 40 CFR 63.7495(b); 40 CFR 63.7495(d); 40 CFR 63.7499(l); 40 CFR 63.7500(a); 40 CFR 63.7500(a)(1); 40 CFR 63.7500(a)(3); 40 CFR 63.7500(b); 40 CFR 63.7505(a); 40 CFR 63.7515(d), five year tune-up frequency;

Requirement number	Requirement and citation
	40 CFR 63.7540(a); 40 CFR 63.7540(a)(10); 40 CFR 63.7540(a)(12), units with continuous oxygen trim systems; 40 CFR 63.7540(a)(13); 40 CFR 63.7540(b); 40 CFR 63.7545(a); 40 CFR 63.7545(f); 40 CFR 63.7545(h); 40 CFR 63.7550(a); 40 CFR 63.7550(b), five year tune-up frequency; 40 CFR 63.7550(c); 40 CFR 63.7550(c)(1); 40 CFR 63.7550(c)(5)(i)-(iii), (xiv), and (xvii); 40 CFR 63.7550(h)(3); 40 CFR 63.7555(a)(1); 40 CFR 63.7555(h); 40 CFR 63.7560; 40 CFR 63.7565; 40 CFR 63.7570; 40 CFR 63.7575; 40 CFR pt. 63, subp. DDDDD, Table 3, item 1; 40 CFR pt. 63, subp. DDDDD, Table 9; and 40 CFR pt. 63, subp. DDDDD, Table 10. A copy of 40 CFR pt. 63, subp. DDDDD is included in Appendix K. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than 3 years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. DDDDD, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.7050]
EQUI 198	SII 125 MMBtu Heating Boiler
5.160.1	Filterable Particulate Matter <= 0.6 pounds per million Btu heat input. The potential to emit from the unit is 0.016 lb/MMBtu due to equipment design and allowable fuels. [Minn. R. 7011.0510, subp. 1]
5.160.2	Opacity <= 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity. [Minn. R. 7011.0510, subp. 2]
5.160.3	Sulfur Dioxide <= 2.0 pounds per million Btu heat input. The potential to emit from the unit is 0.61 lb/MMBtu due to equipment design and allowable fuels. [Minn. R. 7011.0510, subp. 1]
5.160.4	Fuel type: Natural gas, propane, or No. 2 fuel oil only. [Minn. R. 7005.0100, subp. 35a]
5.160.5	The Permittee shall keep records of fuel purchases showing fuel types. [Minn. R. 7007.0800, subp. 5]
5.160.6	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. A as follows: 40 CFR 63.1(a), (b)(1), (b)(3), (c)(1)-(2), (c)(5)-(6), and (e); 40 CFR 63.2; 40 CFR 63.3; 40 CFR 63.4(a)-(c); 40 CFR 63.5(a)-(b) and (d)-(f); 40 CFR 63.6(a)(1)-(2), (b)(1)-(7), (c)(1)-(2), (c)(5), (f)(2)-(3), (g), (i)(1)-(11), and (j); 40 CFR 63.7(a)(2)(ix), (a)(3)-(4), (b)-(d), and (f)-(h); 40 CFR 63.8(b)(1)-(3), and (c)-(g);

Requirement number	Requirement and citation
	40 CFR 63.9(b)(1)-(5), (c)-(k); 40 CFR 63.10(a)(5)-(7), (b)(1), (b)(2)(i), (b)(2)(iii), (b)(2)(vi)-(viii), (b)(2)(ix)-(xiv), (c), (d)(1), (d)(2), (d)(4), (e), and (f); 40 CFR 63.12; 40 CFR 63.13; 40 CFR 63.14; 40 CFR 63.15(a)-(b); and 40 CFR 63.1. A copy of 40 CFR pt. 63, subp. A is included in Appendix C. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. A, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.0050, subp. 1(B), Minn. R. 7017.1010 & 7017.2025, Minn. R. 7019.0100]
5.160.7	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. DDDDD, as follows: 40 CFR 63.7480; 40 CFR 63.7485; 40 CFR 63.7490(a)(1); 40 CFR 63.7490(d); 40 CFR 63.7495(b); 40 CFR 63.7495(d); 40 CFR 63.7499(l); 40 CFR 63.7500(a); 40 CFR 63.7500(a)(1); 40 CFR 63.7500(a)(3); 40 CFR 63.7500(b); 40 CFR 63.7505(a); 40 CFR 63.7515(d), five year tune-up frequency; 40 CFR 63.7540(a); 40 CFR 63.7540(a)(10); 40 CFR 63.7540(a)(12), units with continuous oxygen trim systems; 40 CFR 63.7540(a)(13); 40 CFR 63.7540(b); 40 CFR 63.7545(a); 40 CFR 63.7545(f); 40 CFR 63.7545(h); 40 CFR 63.7550(a); 40 CFR 63.7550(b), five year tune-up frequency; 40 CFR 63.7550(c); 40 CFR 63.7550(c)(1); 40 CFR 63.7550(c)(5)(i)-(iii), (xiv), and (xvii); 40 CFR 63.7550(h)(3); 40 CFR 63.7555(a)(1); 40 CFR 63.7555(h); 40 CFR 63.7560; 40 CFR 63.7565;

Requirement number	Requirement and citation
	40 CFR 63.7570; 40 CFR 63.7575; 40 CFR pt. 63, subp. DDDDD, Table 3, item 1; 40 CFR pt. 63, subp. DDDDD, Table 9; and 40 CFR pt. 63, subp. DDDDD, Table 10. A copy of 40 CFR pt. 63, subp. DDDDD is included in Appendix K. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than 3 years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. DDDDD, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.7050]
EQUI 199	SIII 153 MMBtu Heating Boiler
5.161.1	Filterable Particulate Matter <= 0.4 pounds per million Btu heat input. The potential to emit from the unit is 0.016 lb/MMBtu due to equipment design and allowable fuels. [Minn. R. 7011.0515, subp. 1]
5.161.2	Opacity <= 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity. [Minn. R. 7011.0515, subp. 2]
5.161.3	Sulfur Dioxide <= 2.0 pounds per million Btu heat input. The potential to emit from the unit is 0.61 lb/MMBtu due to equipment design and allowable fuels. [Minn. R. 7011.0515, subp. 1]
5.161.4	Fuel type: Natural gas, propane, or No. 2 fuel oil only. [Minn. R. 7005.0100, subp. 35a]
5.161.5	Operating Hours <= 48 hours per year (calendar year basis) using liquid fuels for periodic testing of liquid fuel, maintenance, or operator training; except during periods of gas curtailment or gas supply interruptions of any duration. Liquid fuel may be used during periods of gas curtailment or interruption of any duration. [Minn. R. 7007.0800, subp. 2(A)]
5.161.6	The Permittee shall keep records of fuel purchases showing fuel types. [Minn. R. 7007.0800, subp. 5]
5.161.7	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. A as follows: 40 CFR 63.1(a), (b)(1), (b)(3), (c)(1)-(2), (c)(5)-(6), and (e); 40 CFR 63.2; 40 CFR 63.3; 40 CFR 63.4(a)-(c); 40 CFR 63.5(a)-(b) and (d)-(f); 40 CFR 63.6(a)(1)-(2), (b)(1)-(7), (c)(1)-(2), (c)(5), (f)(2)-(3), (g), (i)(1)-(11), and (j); 40 CFR 63.7(a)(2)(ix), (a)(3)-(4), (b)-(d), and (f)-(h); 40 CFR 63.8(b)(1)-(3), and (c)-(g); 40 CFR 63.9(b)(1)-(5), (c)-(k); 40 CFR 63.10(a)(5)-(7), (b)(1), (b)(2)(i), (b)(2)(iii), (b)(2)(vi)-(viii), (b)(2)(ix)-(xiv), (c), (d)(1), (d)(2), (d)(4), (e), and (f); 40 CFR 63.12; 40 CFR 63.13; 40 CFR 63.14; 40 CFR 63.15(a)-(b); and 40 CFR 63.16. A copy of 40 CFR pt. 63, subp. A is included in Appendix C. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application

Requirement number	Requirement and citation
	for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. A, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.0050, subp. 1(B), Minn. R. 7017.1010 & 7017.2025, Minn. R. 7019.0100]
5.161.8	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. DDDDD, as follows: 40 CFR 63.7480; 40 CFR 63.7485; 40 CFR 63.7490(a)(1); 40 CFR 63.7490(d); 40 CFR 63.7495(b); 40 CFR 63.7495(d); 40 CFR 63.7499(l); 40 CFR 63.7500(a); 40 CFR 63.7500(a)(1); 40 CFR 63.7500(a)(3); 40 CFR 63.7500(b); 40 CFR 63.7505(a); 40 CFR 63.7515(d), five year tune-up frequency; 40 CFR 63.7540(a); 40 CFR 63.7540(a)(10); 40 CFR 63.7540(a)(12), units with continuous oxygen trim systems; 40 CFR 63.7540(a)(13); 40 CFR 63.7540(b); 40 CFR 63.7545(a); 40 CFR 63.7545(f); 40 CFR 63.7545(h); 40 CFR 63.7550(a); 40 CFR 63.7550(b), five year tune-up frequency; 40 CFR 63.7550(c); 40 CFR 63.7550(c)(1); 40 CFR 63.7550(c)(5)(i)-(iii), (xiv), and (xvii); 40 CFR 63.7550(h)(3); 40 CFR 63.7555(a)(1); 40 CFR 63.7555(h); 40 CFR 63.7560; 40 CFR 63.7565; 40 CFR 63.7570; 40 CFR 63.7575; 40 CFR pt. 63, subp. DDDDD, Table 3, item 1; 40 CFR pt. 63, subp. DDDDD, Table 9; and 40 CFR pt. 63, subp. DDDDD, Table 10. A copy of 40 CFR pt. 63, subp. DDDDD is included in Appendix K. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than 3 years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. DDDDD, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.7050]

Requirement number	Requirement and citation
EQUI 200	SIII 153 MMBtu Heating Boiler
5.162.1	Filterable Particulate Matter <= 0.4 pounds per million Btu heat input. The potential to emit from the unit is 0.016 lb/MMBtu due to equipment design and allowable fuels. [Minn. R. 7011.0515, subp. 1]
5.162.2	Opacity <= 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity. [Minn. R. 7011.0515, subp. 2]
5.162.3	Sulfur Dioxide <= 2.0 pounds per million Btu heat input. The potential to emit from the unit is 0.61 lb/MMBtu due to equipment design and allowable fuels. [Minn. R. 7011.0515, subp. 1]
5.162.4	Fuel type: Natural gas, propane, or No. 2 fuel oil only. [Minn. R. 7005.0100, subp. 35a]
5.162.5	Operating Hours <= 48 hours per year (calendar year basis) using liquid fuels for periodic testing of liquid fuel, maintenance, or operator training; except during periods of gas curtailment or gas supply interruptions of any duration. Liquid fuel may be used during periods of gas curtailment or interruption of any duration. [Minn. R. 7007.0800, subp. 2(A)]
5.162.6	The Permittee shall keep records of fuel purchases showing fuel types. [Minn. R. 7007.0800, subp. 5]
5.162.7	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. A as follows: 40 CFR 63.1(a), (b)(1), (b)(3), (c)(1)-(2), (c)(5)-(6), and (e); 40 CFR 63.2; 40 CFR 63.3; 40 CFR 63.4(a)-(c); 40 CFR 63.5(a)-(b) and (d)-(f); 40 CFR 63.6(a)(1)-(2), (b)(1)-(7), (c)(1)-(2), (c)(5), (f)(2)-(3), (g), (i)(1)-(11), and (j); 40 CFR 63.7(a)(2)(ix), (a)(3)-(4), (b)-(d), and (f)-(h); 40 CFR 63.8(b)(1)-(3), and (c)-(g); 40 CFR 63.9(b)(1)-(5), (c)-(k); 40 CFR 63.10(a)(5)-(7), (b)(1), (b)(2)(i), (b)(2)(iii), (b)(2)(vi)-(viii), (b)(2)(ix)-(xiv), (c), (d)(1), (d)(2), (d)(4), (e), and (f); 40 CFR 63.12; 40 CFR 63.13; 40 CFR 63.14; 40 CFR 63.15(a)-(b); and 40 CFR 63.16. A copy of 40 CFR pt. 63, subp. A is included in Appendix C. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. A, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.0050, subp. 1(B), Minn. R. 7017.1010 & 7017.2025, Minn. R. 7019.0100]
5.162.8	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. DDDDD, as follows: 40 CFR 63.7480; 40 CFR 63.7485; 40 CFR 63.7490(a)(1); 40 CFR 63.7490(d); 40 CFR 63.7495(b); 40 CFR 63.7495(d);

Requirement number	Requirement and citation
	40 CFR 63.7499(l); 40 CFR 63.7500(a); 40 CFR 63.7500(a)(1); 40 CFR 63.7500(a)(3); 40 CFR 63.7500(b); 40 CFR 63.7505(a); 40 CFR 63.7515(d), five year tune-up frequency; 40 CFR 63.7540(a); 40 CFR 63.7540(a)(10); 40 CFR 63.7540(a)(12), units with continuous oxygen trim systems; 40 CFR 63.7540(a)(13); 40 CFR 63.7540(b); 40 CFR 63.7545(a); 40 CFR 63.7545(f); 40 CFR 63.7545(h); 40 CFR 63.7550(a); 40 CFR 63.7550(b), five year tune-up frequency; 40 CFR 63.7550(c); 40 CFR 63.7550(c)(1); 40 CFR 63.7550(c)(5)(i)-(iii), (xiv), and (xvii); 40 CFR 63.7550(h)(3); 40 CFR 63.7555(a)(1); 40 CFR 63.7555(h); 40 CFR 63.7560; 40 CFR 63.7565; 40 CFR 63.7570; 40 CFR 63.7575; 40 CFR pt. 63, subp. DDDDD, Table 3, item 1; 40 CFR pt. 63, subp. DDDDD, Table 9; and 40 CFR pt. 63, subp. DDDDD, Table 10. A copy of 40 CFR pt. 63, subp. DDDDD is included in Appendix K. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than 3 years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. DDDDD, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.7050]
EQUI 201	24.6 MMBtu Boiler
5.163.1	Filterable Particulate Matter <= 0.4 pounds per million Btu heat input. The potential to emit from the unit is 0.016 lb/MMBtu due to equipment design and allowable fuels. [Minn. R. 7011.0515, subp. 1]
5.163.2	Opacity <= 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity. [Minn. R. 7011.0515, subp. 2]
5.163.3	Sulfur Dioxide <= 2.0 pounds per million Btu heat input. The potential to emit from the unit is 0.61 lb/MMBtu due to equipment design and allowable fuels. [Minn. R. 7011.0515, subp. 1]
5.163.4	Fuel type: Natural gas, propane, or No. 2 fuel oil only. [Minn. R. 7005.0100, subp. 35a]
5.163.5	Operating Hours <= 48 hours per year (calendar year basis) using liquid fuels for periodic testing of liquid fuel, maintenance, or operator training; except during periods of gas curtailment or gas supply interruptions of any duration. Liquid fuel may be used during periods of gas curtailment or interruption of any duration. [Minn. R. 7007.0800, subp. 2(A)]

Requirement number	Requirement and citation
5.163.6	The Permittee shall keep records of fuel purchases showing fuel types. [Minn. R. 7007.0800, subp. 5]
5.163.7	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. A as follows: 40 CFR 63.1(a), (b)(1), (b)(3), (c)(1)-(2), (c)(5)-(6), and (e); 40 CFR 63.2; 40 CFR 63.3; 40 CFR 63.4(a)-(c); 40 CFR 63.5(a)-(b) and (d)-(f); 40 CFR 63.6(a)(1)-(2), (b)(1)-(7), (c)(1)-(2), (c)(5), (f)(2)-(3), (g), (i)(1)-(11), and (j); 40 CFR 63.7(a)(2)(ix), (a)(3)-(4), (b)-(d), and (f)-(h); 40 CFR 63.8(b)(1)-(3), and (c)-(g); 40 CFR 63.9(b)(1)-(5), (c)-(k); 40 CFR 63.10(a)(5)-(7), (b)(1), (b)(2)(i), (b)(2)(iii), (b)(2)(vi)-(viii), (b)(2)(ix)-(xiv), (c), (d)(1), (d)(2), (d)(4), (e), and (f); 40 CFR 63.12; 40 CFR 63.13; 40 CFR 63.14; 40 CFR 63.15(a)-(b); and 40 CFR 63.16. A copy of 40 CFR pt. 63, subp. A is included in Appendix C. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. A, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.0050, subp. 1(B), Minn. R. 7017.1010 & 7017.2025, Minn. R. 7019.0100]
5.163.8	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. DDDDD, as follows: 40 CFR 63.7480; 40 CFR 63.7485; 40 CFR 63.7490(a)(1); 40 CFR 63.7490(d); 40 CFR 63.7495(b); 40 CFR 63.7495(d); 40 CFR 63.7499(l); 40 CFR 63.7500(a); 40 CFR 63.7500(a)(1); 40 CFR 63.7500(a)(3); 40 CFR 63.7500(b); 40 CFR 63.7505(a); 40 CFR 63.7515(d), five year tune-up frequency; 40 CFR 63.7540(a); 40 CFR 63.7540(a)(10); 40 CFR 63.7540(a)(12), units with continuous oxygen trim systems; 40 CFR 63.7540(a)(13); 40 CFR 63.7540(b); 40 CFR 63.7545(a); 40 CFR 63.7545(f);

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	40 CFR 63.7545(h); 40 CFR 63.7550(a); 40 CFR 63.7550(b), five year tune-up frequency; 40 CFR 63.7550(c); 40 CFR 63.7550(c)(1); 40 CFR 63.7550(c)(5)(i)-(iii), (xiv), and (xvii); 40 CFR 63.7550(h)(3); 40 CFR 63.7555(a)(1); 40 CFR 63.7555(h); 40 CFR 63.7560; 40 CFR 63.7565; 40 CFR 63.7570; 40 CFR 63.7575; 40 CFR pt. 63, subp. DDDDD, Table 3, item 1; 40 CFR pt. 63, subp. DDDDD, Table 9; and 40 CFR pt. 63, subp. DDDDD, Table 10. A copy of 40 CFR pt. 63, subp. DDDDD is included in Appendix K. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than 3 years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. DDDDD, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.7050]
EQUI 202	24.6 MMBtu Boiler
5.164.1	Filterable Particulate Matter <= 0.4 pounds per million Btu heat input. The potential to emit from the unit is 0.016 lb/MMBtu due to equipment design and allowable fuels. [Minn. R. 7011.0515, subp. 1]
5.164.2	Opacity <= 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity. [Minn. R. 7011.0515, subp. 2]
5.164.3	Sulfur Dioxide <= 2.0 pounds per million Btu heat input. The potential to emit from the unit is 0.61 lb/MMBtu due to equipment design and allowable fuels. [Minn. R. 7011.0515, subp. 1]
5.164.4	Fuel type: Natural gas, propane, or No. 2 fuel oil only. [Minn. R. 7005.0100, subp. 35a]
5.164.5	Operating Hours <= 48 hours per year (calendar year basis) using liquid fuels for periodic testing of liquid fuel, maintenance, or operator training; except during periods of gas curtailment or gas supply interruptions of any duration. Liquid fuel may be used during periods of gas curtailment or interruption of any duration. [Minn. R. 7007.0800, subp. 2(A)]
5.164.6	The Permittee shall keep records of fuel purchases showing fuel types. [Minn. R. 7007.0800, subp. 5]
5.164.7	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. A as follows: 40 CFR 63.1(a), (b)(1), (b)(3), (c)(1)-(2), (c)(5)-(6), and (e); 40 CFR 63.2; 40 CFR 63.3; 40 CFR 63.4(a)-(c); 40 CFR 63.5(a)-(b) and (d)-(f); 40 CFR 63.6(a)(1)-(2), (b)(1)-(7), (c)(1)-(2), (c)(5), (f)(2)-(3), (g), (i)(1)-(11), and (j); 40 CFR 63.7(a)(2)(ix), (a)(3)-(4), (b)-(d), and (f)-(h); 40 CFR 63.8(b)(1)-(3), and (c)-(g); 40 CFR 63.9(b)(1)-(5), (c)-(k); 40 CFR 63.10(a)(5)-(7), (b)(1), (b)(2)(i), (b)(2)(iii), (b)(2)(vi)-(viii), (b)(2)(ix)-(xiv), (c), (d)(1), (d)(2), (d)(4),

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	(e), and (f); 40 CFR 63.12; 40 CFR 63.13; 40 CFR 63.14; 40 CFR 63.15(a)-(b); and 40 CFR 63.16. A copy of 40 CFR pt. 63, subp. A is included in Appendix C. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. A, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.0050, subp. 1(B), Minn. R. 7017.1010 & 7017.2025, Minn. R. 7019.0100]
5.164.8	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. DDDDD, as follows: 40 CFR 63.7480; 40 CFR 63.7485; 40 CFR 63.7490(a)(1); 40 CFR 63.7490(d); 40 CFR 63.7495(b); 40 CFR 63.7495(d); 40 CFR 63.7499(l); 40 CFR 63.7500(a); 40 CFR 63.7500(a)(1); 40 CFR 63.7500(a)(3); 40 CFR 63.7500(b); 40 CFR 63.7505(a); 40 CFR 63.7515(d), five year tune-up frequency; 40 CFR 63.7540(a); 40 CFR 63.7540(a)(10); 40 CFR 63.7540(a)(12), units with continuous oxygen trim systems; 40 CFR 63.7540(a)(13); 40 CFR 63.7540(b); 40 CFR 63.7545(a); 40 CFR 63.7545(f); 40 CFR 63.7545(h); 40 CFR 63.7550(a); 40 CFR 63.7550(b), five year tune-up frequency; 40 CFR 63.7550(c); 40 CFR 63.7550(c)(1); 40 CFR 63.7550(c)(5)(i)-(iii), (xiv), and (xvii); 40 CFR 63.7550(h)(3); 40 CFR 63.7555(a)(1); 40 CFR 63.7555(h); 40 CFR 63.7560; 40 CFR 63.7565; 40 CFR 63.7570; 40 CFR 63.7575;

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	40 CFR pt. 63, subp. DDDDD, Table 3, item 1; 40 CFR pt. 63, subp. DDDDD, Table 9; and 40 CFR pt. 63, subp. DDDDD, Table 10. A copy of 40 CFR pt. 63, subp. DDDDD is included in Appendix K. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than 3 years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. DDDDD, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.7050]
EQUI 206	Step I Coarse Crusher Pan Feeders
5.165.1	The Permittee shall vent emissions from EQUI 206 to control equipment meeting the requirements of TREA 231 whenever EQUI 206 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.165.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.165.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 207	Step I Coarse Crusher Pan Feeders
5.166.1	The Permittee shall vent emissions from EQUI 207 to control equipment meeting the requirements of TREA 231 whenever EQUI 207 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.166.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.166.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 208	Step II Coarse Crusher Pan Feeders
5.167.1	The Permittee shall vent emissions from EQUI 208 to control equipment meeting the requirements of TREA 232 whenever EQUI 208 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.167.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.167.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 209	Storage Bin L1,2
5.168.1	The Permittee shall vent emissions from EQUI 209 to control equipment meeting the requirements of TREA 188 whenever EQUI 209 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.168.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.168.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 210	Storage Bin L1,2
5.169.1	The Permittee shall vent emissions from EQUI 210 to control equipment meeting the requirements of TREA 188 whenever EQUI 210 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]

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5.169.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.169.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 211	Storage Bin L1,2
5.170.1	The Permittee shall vent emissions from EQUI 211 to control equipment meeting the requirements of TREA 188 whenever EQUI 211 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.170.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.170.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 212	Storage Bin L1,2
5.171.1	The Permittee shall vent emissions from EQUI 212 to control equipment meeting the requirements of TREA 188 whenever EQUI 212 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.171.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.171.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 213	Storage Bin L1,2
5.172.1	The Permittee shall vent emissions from EQUI 213 to control equipment meeting the requirements of TREA 188 whenever EQUI 213 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.172.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.172.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 214	Storage Bin L1,2
5.173.1	The Permittee shall vent emissions from EQUI 214 to control equipment meeting the requirements of TREA 188 whenever EQUI 214 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.173.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.173.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 215	Storage Bin L1,2
5.174.1	The Permittee shall vent emissions from EQUI 215 to control equipment meeting the requirements of TREA 188 whenever EQUI 215 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.174.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.174.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 216	Storage Bin L3,4

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5.175.1	The Permittee shall vent emissions from EQUI 216 to control equipment meeting the requirements of TREA 189 whenever EQUI 216 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.175.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.175.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 217	Storage Bin L3,4
5.176.1	The Permittee shall vent emissions from EQUI 217 to control equipment meeting the requirements of TREA 189 whenever EQUI 217 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.176.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.176.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 218	Storage Bin L3,4
5.177.1	The Permittee shall vent emissions from EQUI 218 to control equipment meeting the requirements of TREA 189 whenever EQUI 218 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.177.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.177.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 219	Storage Bin L3,4
5.178.1	The Permittee shall vent emissions from EQUI 219 to control equipment meeting the requirements of TREA 189 whenever EQUI 219 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.178.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.178.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 220	Storage Bin L3,4
5.179.1	The Permittee shall vent emissions from EQUI 220 to control equipment meeting the requirements of TREA 189 whenever EQUI 220 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.179.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.179.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 221	Storage Bin L3,4
5.180.1	The Permittee shall vent emissions from EQUI 221 to control equipment meeting the requirements of TREA 189 whenever EQUI 221 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.180.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.180.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further

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	reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 222	Storage Bin L5,6
5.181.1	The Permittee shall vent emissions from EQUI 222 to control equipment meeting the requirements of TREA 190 whenever EQUI 222 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.181.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.181.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 223	Storage Bin L5,6
5.182.1	The Permittee shall vent emissions from EQUI 223 to control equipment meeting the requirements of TREA 190 whenever EQUI 223 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.182.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.182.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 224	Storage Bin L5,6
5.183.1	The Permittee shall vent emissions from EQUI 224 to control equipment meeting the requirements of TREA 190 whenever EQUI 224 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.183.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.183.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 225	Storage Bin L5,6
5.184.1	The Permittee shall vent emissions from EQUI 225 to control equipment meeting the requirements of TREA 190 whenever EQUI 225 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.184.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.184.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 226	Storage Bin L7,8
5.185.1	The Permittee shall vent emissions from EQUI 226 to control equipment meeting the requirements of TREA 191 whenever EQUI 226 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.185.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.185.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 227	Storage Bin L7,8
5.186.1	The Permittee shall vent emissions from EQUI 227 to control equipment meeting the requirements of TREA 191 whenever EQUI 227 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]

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5.186.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.186.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 228	Storage Bin L7,8
5.187.1	The Permittee shall vent emissions from EQUI 228 to control equipment meeting the requirements of TREA 191 whenever EQUI 228 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.187.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.187.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 229	Storage Bin L7,8
5.188.1	The Permittee shall vent emissions from EQUI 229 to control equipment meeting the requirements of TREA 191 whenever EQUI 229 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.188.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.188.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 230	Storage Bin L7,8
5.189.1	The Permittee shall vent emissions from EQUI 230 to control equipment meeting the requirements of TREA 191 whenever EQUI 230 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.189.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.189.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 231	Storage Bin L9,10
5.190.1	The Permittee shall vent emissions from EQUI 231 to control equipment meeting the requirements of TREA 192 whenever EQUI 231 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.190.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.190.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 232	Storage Bin L9,10
5.191.1	The Permittee shall vent emissions from EQUI 232 to control equipment meeting the requirements of TREA 84 whenever EQUI 232 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.191.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.191.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 233	Storage Bin L9,10

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5.192.1	The Permittee shall vent emissions from EQUI 233 to control equipment meeting the requirements of TREA 192 whenever EQUI 233 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.192.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.192.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 234	Storage Bin L9,10
5.193.1	The Permittee shall vent emissions from EQUI 234 to control equipment meeting the requirements of TREA 192 whenever EQUI 234 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.193.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.193.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 235	Storage Bin L11,12
5.194.1	The Permittee shall vent emissions from EQUI 235 to control equipment meeting the requirements of TREA 193 whenever EQUI 235 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.194.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.194.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 236	Storage Bin L11,12
5.195.1	The Permittee shall vent emissions from EQUI 236 to control equipment meeting the requirements of TREA 193 whenever EQUI 236 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.195.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.195.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 237	Storage Bin L11,12
5.196.1	The Permittee shall vent emissions from EQUI 237 to control equipment meeting the requirements of TREA 193 whenever EQUI 237 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.196.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.196.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 238	Storage Bin L11,12
5.197.1	The Permittee shall vent emissions from EQUI 238 to control equipment meeting the requirements of TREA 193 whenever EQUI 238 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.197.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.197.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further

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	reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 239	Storage Bin L11,12
5.198.1	The Permittee shall vent emissions from EQUI 239 to control equipment meeting the requirements of TREA 193 whenever EQUI 239 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.198.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.198.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 240	Conveyor Transfer 009-020
5.199.1	The Permittee shall vent emissions from EQUI 240 to control equipment meeting the requirements of TREA 86 whenever EQUI 240 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.199.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.199.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 241	Conveyor Transfer 009-020
5.200.1	The Permittee shall vent emissions from EQUI 241 to control equipment meeting the requirements of TREA 86 whenever EQUI 241 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.200.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.200.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 242	Storage Bin L13,14
5.201.1	The Permittee shall vent emissions from EQUI 242 to control equipment meeting the requirements of TREA 218 whenever EQUI 242 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.201.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.201.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 243	Storage Bin L13,14
5.202.1	The Permittee shall vent emissions from EQUI 243 to control equipment meeting the requirements of TREA 218 whenever EQUI 243 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.202.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.202.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 244	Storage Bin L13,14
5.203.1	The Permittee shall vent emissions from EQUI 244 to control equipment meeting the requirements of TREA 218 whenever EQUI 244 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]

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5.203.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.203.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 245	Storage Bin L13,14
5.204.1	The Permittee shall vent emissions from EQUI 245 to control equipment meeting the requirements of TREA 218 whenever EQUI 245 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.204.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.204.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 246	Storage Bin L13,14
5.205.1	The Permittee shall vent emissions from EQUI 246 to control equipment meeting the requirements of TREA 218 whenever EQUI 246 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.205.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.205.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 247	Storage Bin L15,16
5.206.1	The Permittee shall vent emissions from EQUI 247 to control equipment meeting the requirements of TREA 187 whenever EQUI 247 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.206.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.206.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 248	Storage Bin L15,16
5.207.1	The Permittee shall vent emissions from EQUI 248 to control equipment meeting the requirements of TREA 187 whenever EQUI 248 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.207.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.207.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 249	Storage Bin L15,16
5.208.1	The Permittee shall vent emissions from EQUI 249 to control equipment meeting the requirements of TREA 187 whenever EQUI 249 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.208.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.208.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 250	Storage Bin L15,16

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5.209.1	The Permittee shall vent emissions from EQUI 250 to control equipment meeting the requirements of TREA 187 whenever EQUI 250 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.209.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.209.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 251	Storage Bin L17,18
5.210.1	The Permittee shall vent emissions from EQUI 251 to control equipment meeting the requirements of TREA 216 whenever EQUI 251 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.210.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.210.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 252	Storage Bin L17,18
5.211.1	The Permittee shall vent emissions from EQUI 252 to control equipment meeting the requirements of TREA 216 whenever EQUI 252 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.211.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 253	Storage Bin L17,18
5.212.1	The Permittee shall vent emissions from EQUI 253 to control equipment meeting the requirements of TREA 216 whenever EQUI 253 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.212.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.212.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 254	Storage Bin L17,18
5.213.1	The Permittee shall vent emissions from EQUI 254 to control equipment meeting the requirements of TREA 216 whenever EQUI 254 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.213.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.213.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 255	Heaters (25 units, Ltr 8/10/01)
5.214.1	Filterable Particulate Matter <= 0.4 pounds per million Btu heat input The potential to emit from the unit is 0.0077 lb/MMBtu due to equipment design and allowable fuels. [Minn. R. 7011.0515, subp. 1]
5.214.2	Opacity <= 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity. [Minn. R. 7011.0515, subp. 2]
5.214.3	Fuel type: Natural gas only, by design. [Minn. R. 7005.0100, subp. 35a]
5.214.4	The Permittee shall keep records of fuel purchases showing fuel types. [Minn. R. 7007.0800, subp. 5]
EQUI 266	Hill Wood Products system
5.215.1	The Permittee shall vent emissions from EQUI 266 to control equipment meeting the requirements of

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	TREA 171 whenever EQUI 266 operates. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
5.215.2	The Permittee must limit Process Throughput $\leq$ 220,000 tons per year 12-month rolling sum wood waste to be calculated by the 15th day of each month for the previous 12-month period as described later in this permit. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
5.215.3	Particulate Matter $\leq$ 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
5.215.4	Opacity $\leq$ 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.215.5	Process Throughput: Daily Recordkeeping. On each day of operation the Permittee must calculate, record, and maintain a record of the total quantity of wood waste received. This must be recorded in usage logs. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.215.6	Process Throughput: Monthly Recordkeeping. By the 15th of the month, the Permittee must calculate and record the following: 1) The total wood waste received for EQUI 266 for the previous calendar month using the daily records; and 2) The 12-month rolling sum of wood waste received for the previous 12-month period by summing the wood waste received used for the previous 12 months. [Minn. R. 7007.0800, subps. 4-5]
EQUI 267	L6 Pellet Cooler Vent Stack
5.216.1	Opacity $\leq$ 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.216.2	Particulate Matter $\leq$ 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
5.216.3	Visible Emissions: The Permittee shall check the Line 6 Pellet Cooler Stack (STRU 254) for any visible emissions once each day of operation during daylight hours, except during inclement weather. [Minn. R. 7007.0800, subp. 2(A)]
5.216.4	Recordkeeping of Visible Emissions: The Permittee shall record the time and date of each visible emission inspection, whether or not any visible emissions were observed and whether or not inclement weather was present. [Minn. R. 7007.0800, subps. 4-5]
5.216.5	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: -visible emissions are observed; -the Pellet Cooler or any of its components are found during the inspection to need repair Corrective actions shall eliminate visible emissions, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M plan. The Permittee shall keep a record of the type and date of any corrective action taken. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subps. 4-5]
EQUI 268	L7 Pellet Cooler Vent Stack
5.217.1	Opacity $\leq$ 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.217.2	Particulate Matter $\leq$ 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
5.217.3	Visible Emissions: The Permittee shall check the Line 7 Pellet Cooler Stack (STRU 255) for any visible emissions once each day of operation during daylight hours, except during inclement weather. [Minn.

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	R. 7007.0800, subp. 2(A)]
5.217.4	Recordkeeping of Visible Emissions: The Permittee shall record the time and date of each visible emission inspection, whether or not any visible emissions were observed and whether or not inclement weather was present. [Minn. R. 7007.0800, subps. 4-5]
5.217.5	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - visible emissions are observed; - the Pellet Cooler or any of its components are found during the inspection to need repair Corrective actions shall eliminate visible emissions, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M plan. The Permittee shall keep a record of the type and date of any corrective action taken. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subps. 4-5]
EQUI 269	L6 Bentonite Blending
5.218.1	The Permittee shall vent emissions from TREA 269 to control equipment meeting the requirements of TREA 137 whenever TREA 269 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.218.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.218.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 270	Step I 043/044 Conveyor Transfer
5.219.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.219.2	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 272	L5 Conveyor Transfer Feeder (B4 L5 hygiene)
5.220.1	The Permittee shall vent emissions from EQUI 272 to control equipment meeting the requirements of TREA 132 whenever EQUI 272 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.220.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.220.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 273	L5 Pellet Scrn Fine Belt
5.221.1	The Permittee shall vent emissions from EQUI 273 to control equipment meeting the requirements of TREA 132 whenever EQUI 273 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.221.2	The Permittee must limit Filterable Particulate Matter <= 0.05 grams per dry standard cubic meter (0.022 gr/dscf). [40 CFR 60.382(a)(1), Minn. R. 7011.2700]
5.221.3	The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. LL, as follows: 40 CFR 60.380; 40 CFR 60.381; 40 CFR 60.382(a)(1); 40 CFR 60.383; 40 CFR 60.384;

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	40 CFR 60.385(a); 40 CFR 60.385(b)-(e); and 40 CFR 60.386(a), (b)(1), & (c). A copy of 40 CFR pt. 60, subp. LL is included in Appendix E. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 60, subp. LL, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.2700]
5.221.4	The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. A as follows: 40 CFR 60.1(a), (b), & (c); 40 CFR 60.2; 40 CFR 60.3; 40 CFR 60.4; 40 CFR 60.5; 40 CFR 60.6(a) & (b); 40 CFR 60.7(a)(1), (3), (4), & (6); 40 CFR 60.7(b); 40 CFR 60.8; 40 CFR 60.9; 40 CFR 60.11(a)-(d), (f), & (g); 40 CFR 60.11(e)(1)-(3) & (6)-(8); 40 CFR 60.12; 40 CFR 60.14(a)-(c) & (e)-(g); 40 CFR 60.15; 40 CFR 60.17; and 40 CFR 60.19. A copy of 40 CFR pt. 60, subp. A is included in Appendix C. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 60, subp. A, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.0050, subp. 1(A), Minn. R. 7017.1010 & 7017.2015, subp. 2, Minn. R. 7019.0100]
EQUI 274	Diesel Generator
5.222.1	Opacity <= 20 percent opacity once operating temperatures have been attained. [Minn. R. 7011.2300, subp. 1]
5.222.2	Sulfur Dioxide <= 0.0015 pounds per million Btu heat input. The potential to emit from the unit is 0.0015 lb/MMBtu due to equipment design and allowable fuels. [Minn. R. 7011.2300, subp. 2(B)]
5.222.3	Fuel type: Diesel only, by design. [Minn. R. 7005.0100, subp. 35a]
5.222.4	Hours of Operation: The Permittee shall maintain documentation on site that the unit is an emergency generator by design that qualifies under the U.S. EPA memorandum entitled "Calculating Potential to Emit (PTE) for Emergency Generators" dated September 6, 1995, that allows calculation of potential emissions based on 500 operating hours per year. [Minn. R. 7007.0800, subps. 4-5]
5.222.5	The Permittee shall keep records of fuel type and usage on a monthly basis. [Minn. R. 7007.0800,

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	subp. 5]
5.222.6	Fuel Supplier Certification: The Permittee shall obtain and maintain a fuel supplier certification for each shipment of diesel fuel oil, certifying that the sulfur content does not exceed 0.0015 percent by weight. [Minn. R. 7007.0800, subps. 4-5]
EQUI 275	Limestone Dump Pocket
5.223.1	The Permittee shall vent emissions from EQUI 275 to control equipment meeting the requirements of TREA 90 whenever EQUI 275 operates. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
5.223.2	Opacity <= 7 percent opacity. [40 CFR 60.672(a), Minn. R. 7011.3350]
5.223.3	Filterable Particulate Matter <= 0.022 grains per dry standard cubic foot. [40 CFR 60.672(a), 40 CFR pt. 60, subp. 000(Table 2), Minn. R. 7011.3350]
5.223.4	The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. 000 as follows: 40 CFR 60.670(a); 40 CFR 60.670(d)-(f); 40 CFR 60.671; 40 CFR 60.672(a); 40 CFR 60.673; 40 CFR 60.675(a)-(b); 40 CFR 60.676(a)(3); 40 CFR 60.676(f); 40 CFR 60.676(j); 40 CFR 60.676(k); 40 CFR pt. 60, subp. 000, Table 1; and 40 CFR pt. 60, subp. 000, Table 2. A copy of 40 CFR pt. 60, subp. 000 is included in Appendix F. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 60, subp. 000, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.3550]
5.223.5	The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. A as follows: 40 CFR 60.1; 40 CFR 60.2; 40 CFR 60.3; 40 CFR 60.4; 40 CFR 60.5; 40 CFR 60.7(a)-(b); 40 CFR 60.8; 40 CFR 60.9; 40 CFR 60.11(a)-(d); 40 CFR 60.11(e)(1)-(3) & (6)-(8); 40 CFR 60.11(f)-(g); 40 CFR 60.12; 40 CFR 60.14(a)-(c) & (e)-(g); 40 CFR 60.15; 40 CFR 60.17; and

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	40 CFR 60.19. A copy of 40 CFR pt. 60, subp. A is included in Appendix C. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 60, subp. A, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.0050, subp. 1(A), Minn. R. 7017.1010 & 7017.2015, subp. 2, Minn. R. 7019.0100]
EQUI 278	S3 Ben storage+unloading hopper
5.224.1	The Permittee shall vent emissions from EQUI 278 in parallel to control equipment meeting the requirements of TREA 89 and TREA 135 whenever EQUI 278 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.224.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.224.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 279	L4 Rotary Kiln
5.225.1	The Permittee shall vent emissions from EQUI 279 to control equipment meeting the requirements of TREA 37 whenever EQUI 279 operates. [Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
5.225.2	Fuel Restrictions: The Permittee shall combust at the kiln burner natural gas, fuel oil, and/or types of biomass that are specified in Appendix N of this permit; and at the preheat burners natural gas. Other fuels, as allowed under 40 CFR Part 241, may be combusted for a short period of time during a trial burn as specified and approved by a major amendment to this permit. [Minn. R. 7007.0800, subp. 2, Title I Condition: 40 CFR 52.21(j)(BACT) and Minn. R. 7007.3000]
5.225.3	Fluorides <= 1.62 pounds per hour 3-hour average. [Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
5.225.4	Carbon Monoxide <= 98.6 pounds per hour 3-hour average. [Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
5.225.5	Volatile Organic Compounds <= 74.0 pounds per hour 3-hour average. [Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
5.225.6	Sulfur Dioxide <= 2.0 pounds per million Btu heat input when burning liquid fossil fuels. If more than one fuel is burned simultaneously, calculate the emission limit as indicated in Minn. R. 7011.0605. The potential to emit from the unit is 0.396 lb/MMBtu due to equipment design and allowable fuels. [Minn. R. 7011.0610, subp. 2]
5.225.7	Opacity <= 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity. [Minn. R. 7011.0610, subp. 1(A)(2)]
5.225.8	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0610, subp. 1(A)(1)]
5.225.9	The Permittee shall keep records of fuel purchases showing fuel types. [Minn. R. 7007.0800, subp. 2, Title I Condition: 40 CFR 52.21(j)(BACT) and Minn. R. 7007.3000]
5.225.10	Temperature >= 1400 degrees Fahrenheit 3-hour rolling average monitored at the kiln exit. This limit does not apply during EQUI 279 startup or shutdown. If the 3-hour rolling average operating temperature is below the minimum temperature limit, this must be reported as a deviation. [Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]

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5.225.11	Kiln exit temperature continuous monitoring. The Permittee must install, maintain, and operate at all times a temperature monitoring device(s) at the kiln exit. A minimum of one thermocouple shall be installed at the kiln exit. Each temperature monitoring device shall be certified by the manufacturer to have an accuracy of +/-5% over its operating range. The temperature monitoring device shall be operated continuously, and data recorded during all periods of operation. Continuously is defined as determining at least one data point in each 15-minute time interval. [Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
5.225.12	The Permittee must maintain a continuous hard copy readout or computer disk file of the temperature readings and calculated 3-hour rolling average temperature at the kiln exit. [Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
5.225.13	Burner and grate inspections. The Permittee must inspect the kiln and grate burners every 18 months. Each inspection must be conducted no more than 18 months after the previous inspection. The inspection must verify at a minimum: -proper alignment of kiln burners and grate burners; and -good operating condition of combustion air fans for the kiln burners and grate burners. The Permittee must keep a written record of the inspection and any action resulting from the inspection. [Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
5.225.14	The Permittee must limit Filterable Particulate Matter ≤ 0.01 grains per dry standard cubic foot 3-hour average measured as a flow-weighted mean concentration for all stacks from the indurating furnace. The Permittee must determine the flow-weighted mean concentration of front-half particulate matter emissions following the procedures in 40 CFR Section 63.9621(c). [40 CFR 63.9590(a), 40 CFR 63.9621(c), 40 CFR 63.9634(c)(1), 40 CFR pt. 63, subp. RRRRR(Table 1)(Item 3)Existing, Minn. R. 7011.8030]
5.225.15	The Permittee must limit Mercury ≤ 0.000014 pound per long ton of pellets produced by March 8, 2027. Under authority provided in Section 112(i)(4) of the Clean Air Act (42 U.S.C. 7412(i)(4)) and according to Proclamation 10958 of July 17, 2025, the Permittee is exempt from compliance with the May 6, 2024, amendments to 40 CFR pt. 63, subp. RRRRR (89 FR 16408) (Taconite MACT amendments) for a period of two years beyond the Taconite MACT amendments' relevant compliance dates. This exemption applies to all compliance deadlines established under the Taconite MACT amendments, with each such deadline extended by two years from the date originally required for such deadline. The effect of this exemption is that, during each such 2-year period, the Permittee is subject to the emissions and compliance obligations that they are currently subject to under 40 CFR pt. 63, subp. RRRRR as that standard existed prior to the Taconite MACT amendments. A copy of the presidential proclamation, as published in the Federal Register on July 23, 2025 (90 FR 34743), is included in Appendix O. [40 CFR 63.4(a)(1), 40 CFR 63.6(j), 40 CFR 63.6(a)(1)(ii), 40 CFR 63.9583(f)(1), 40 CFR 63.9590(a), 40 CFR pt. 63, subp. RRRRR(Table 2)(Item 1), Minn. R. 7011.8030]
5.225.16	The Permittee must limit Hydrogen Chloride ≤ 0.046 pound per long ton of pellets produced by March 8, 2027. Under authority provided in Section 112(i)(4) of the Clean Air Act (42 U.S.C. 7412(i)(4)) and according to Proclamation 10958 of July 17, 2025, the Permittee is exempt from compliance with the May 6, 2024, amendments to 40 CFR pt. 63, subp. RRRRR (89 FR 16408) (Taconite MACT amendments) for a period of two years beyond the Taconite MACT amendments' relevant compliance dates. This exemption applies to all compliance deadlines established under the Taconite MACT amendments, with each such deadline extended by two years from the date originally required for such deadline. The effect of this exemption is that, during each such 2-year period, the Permittee is subject to the emissions and compliance obligations that they are currently subject to under 40 CFR pt. 63, subp.

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	RRRRR as that standard existed prior to the Taconite MACT amendments. A copy of the presidential proclamation, as published in the Federal Register on July 23, 2025 (90 FR 34743), is included in Appendix O. [40 CFR 63.4(a)(1), 40 CFR 63.6(j), 40 CFR 63.6(a)(1)(ii), 40 CFR 63.9583(f)(1), 40 CFR 63.9590(a), 40 CFR pt. 63, subp. RRRRR(Table 3)(Item 1), Minn. R. 7011.8030]
5.225.17	The Permittee must limit Hydrogen fluoride ≤ 0.012 pound per long ton of pellets produced by March 8, 2027. Under authority provided in Section 112(i)(4) of the Clean Air Act (42 U.S.C. 7412(i)(4)) and according to Proclamation 10958 of July 17, 2025, the Permittee is exempt from compliance with the May 6, 2024, amendments to 40 CFR pt. 63, subp. RRRRR (89 FR 16408) (Taconite MACT amendments) for a period of two years beyond the Taconite MACT amendments' relevant compliance dates. This exemption applies to all compliance deadlines established under the Taconite MACT amendments, with each such deadline extended by two years from the date originally required for such deadline. The effect of this exemption is that, during each such 2-year period, the Permittee is subject to the emissions and compliance obligations that they are currently subject to under 40 CFR pt. 63, subp. RRRRR as that standard existed prior to the Taconite MACT amendments. A copy of the presidential proclamation, as published in the Federal Register on July 23, 2025 (90 FR 34743), is included in Appendix O. [40 CFR 63.4(a)(1), 40 CFR 63.6(j), 40 CFR 63.6(a)(1)(ii), 40 CFR 63.9583(f)(1), 40 CFR 63.9590(a), 40 CFR pt. 63, subp. RRRRR(Table 3)(Item 1), Minn. R. 7011.8030]
5.225.18	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9581; 40 CFR 63.9582(a)-(d); 40 CFR 63.9583(a),(e), & (f); 40 CFR 63.9590(a); 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(4); 40 CFR 63.9610(a),(c) & (d); 40 CFR 63.9621(a) & (c); 40 CFR 63.9623(a)(5)-(8); 40 CFR 63.9630(b); 40 CFR 63.9633; 40 CFR 63.9634(a) & (c); 40 CFR 63.9636(a)(4); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9640(a),(d) & (e); 40 CFR 63.9641(a)-(h); 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; 40 CFR 63.9650; 40 CFR 63.9652; 40 CFR pt. 63, subp. RRRRR, Table 1, Item 3 (Existing); 40 CFR pt. 63, subp. RRRRR, Table 2, Item 1(1)(individual limit); 40 CFR pt. 63, subp. RRRRR, Table 3, Item 1; and 40 CFR pt. 63, subp. RRRRR, Table 4, as specified elsewhere in this permit. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if

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	there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. Under authority provided in Section 112(i)(4) of the Clean Air Act (42 U.S.C. 7412(i)(4)) and according to Proclamation 10958 of July 17, 2025, the Permittee is exempt from compliance with the May 6, 2024, amendments to 40 CFR pt. 63, subp. RRRRR (89 FR 16408) (Taconite MACT amendments) for a period of two years beyond the Taconite MACT amendments' relevant compliance dates. This exemption applies to all compliance deadlines established under the Taconite MACT amendments, with each such deadline extended by two years from the date originally required for such deadline. The effect of this exemption is that, during each such 2-year period, the Permittee is subject to the emissions and compliance obligations that they are currently subject to under 40 CFR pt. 63, subp. RRRRR as that standard existed prior to the Taconite MACT amendments. A copy of the presidential proclamation, as published in the Federal Register on July 23, 2025 (90 FR 34743), is included in Appendix O. [40 CFR 63.4(a)(1), 40 CFR 63.6(j), 40 CFR 63.6(a)(1)(ii), 40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.225.19	In addition to the other applicable requirements from 40 CFR pt. 63, subp. RRRRR found elsewhere in this permit, to demonstrate compliance with the hydrogen chloride and hydrogen fluoride emission limits in Table 3 of 40 CFR pt. 63, subp. RRRRR, the Permittee must: - meet the applicable hydrogen chloride and hydrogen fluoride emission limits in Table 3 of 40 CFR pt. 63, subp. RRRRR by March 8, 2027; - meet the applicable operating limits for control devices used to meet the applicable hydrogen chloride and hydrogen fluoride emission limits; - conduct initial performance tests for hydrogen chloride and hydrogen fluoride on all stacks associated with each indurating furnace no later than 180 calendar days after March 8, 2027, in accordance with 40 CFR 63.9620(l); - determine compliance with the applicable hydrogen chloride and hydrogen fluoride emission limits by following the applicable test methods and procedures in 40 CFR 63.9621(d)(1) through (9); - submit a site-specific monitoring plan in accordance with 40 CFR 63.9631(i), if applicable; - establish applicable site-specific operating limits according to the procedures in 40 CFR 63.9622(g) and (i); - demonstrate initial compliance in accordance with 40 CFR 63.9623(c)(1) and (3); - conduct subsequent performance test in accordance with 40 CFR 63.9630(b); - install, operate, and maintain a continuous parameter monitoring system and monitor the applicable operating parameters, in accordance with 40 CFR 63.9631(f) and (h); - develop and make available for inspection upon request a site-specific monitoring plan that addresses the requirements in 40 CFR 63.9632(b)(1) through (7); - must meet the requirements for each CPMS in 40 CFR 63.9632(c)(1) and (2); - must conduct a performance evaluation of each CPMS and maintain the CPMS in continuous operation in accordance with your site-specific monitoring plan; - meet the applicable requirements for continuous parameter monitoring systems in 40 CFR 63.9632(g) through (i); - demonstrate continuous compliance in accordance with the applicable requirements of 40 CFR 63.9634(i)(1) and (2), (k), and (l); - demonstrate continuous compliance with the operation and maintenance requirements by completing the applicable requirements of 40 CFR 63.9636(a)(1) through (4); - submit a notification of compliance status in accordance with 40 CFR 63.9640(e); and - keep all applicable records listed in 40 CFR 63.9642. Under authority provided in Section 112(i)(4) of the Clean Air Act (42 U.S.C. 7412(i)(4)) and according to Proclamation 10958 of July 17, 2025, the Permittee is exempt from compliance with the May 6,

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	2024, amendments to 40 CFR pt. 63, subp. RRRRR (89 FR 16408) (Taconite MACT amendments) for a period of two years beyond the Taconite MACT amendments' relevant compliance dates. This exemption applies to all compliance deadlines established under the Taconite MACT amendments, with each such deadline extended by two years from the date originally required for such deadline. The effect of this exemption is that, during each such 2-year period, the Permittee is subject to the emissions and compliance obligations that they are currently subject to under 40 CFR pt. 63, subp. RRRRR as that standard existed prior to the Taconite MACT amendments. A copy of the presidential proclamation, as published in the Federal Register on July 23, 2025 (90 FR 34743), is included in Appendix O. [40 CFR 63.4(a)(1), 40 CFR 63.6(j), 40 CFR 63.6(a)(1)(ii), 40 CFR pt. 63, subp. RRRRR, Minn. R. 7011.8030]
5.225.20	In addition to the other applicable requirements from 40 CFR pt. 63, subp. RRRRR found elsewhere in this permit, if the Permittee elects not to demonstrate compliance with the mercury emission limit using a mercury CEMS, the Permittee must: - meet the applicable mercury emission limit in Table 2 of 40 CFR pt. 63, subp. RRRRR by March 8, 2027; - meet the applicable operating limits for control devices used to meet the applicable mercury emission limit; - conduct initial performance tests for mercury on all stacks associated with each indurating furnace no later than 180 calendar days after March 8, 2027, in accordance with 40 CFR 63.9620(k)(1); - determine compliance with the applicable mercury emission limit by following the applicable test methods and procedures in 40 CFR 63.9621(d)(1) through (9); - submit a site-specific monitoring plan in accordance with 40 CFR 63.9631(i), if applicable; - establish applicable site-specific operating limits according to the procedures in 40 CFR 63.9622(h); - demonstrate initial compliance in accordance with 40 CFR 63.9623(c)(2); - conduct subsequent performance test in accordance with 40 CFR 63.9630(b); - install, operate, and maintain a continuous parameter monitoring system and monitor the applicable operating parameters, in accordance with 40 CFR 63.9631(g) and (j); - develop and make available for inspection upon request a site-specific monitoring plan that addresses the requirements in 40 CFR 63.9632(b)(1) through (7); - must meet the requirements for each CPMS in 40 CFR 63.9632(c)(1) and (2); - must conduct a performance evaluation of each CPMS and maintain the CPMS in continuous operation in accordance with your site-specific monitoring plan; - meet the applicable requirements for continuous parameter monitoring systems in 40 CFR 63.9632(h) and (i); - demonstrate continuous compliance in accordance with the applicable requirements of 40 CFR 63.9634(j)(1) and (2), (k), (l), and (n); - demonstrate continuous compliance with the operation and maintenance requirements by completing the applicable requirements of 40 CFR 63.9636(a)(1) through (4); - submit a notification of compliance status in accordance with 40 CFR 63.9640(e); and - keep all applicable records listed in 40 CFR 63.9642. Under authority provided in Section 112(i)(4) of the Clean Air Act (42 U.S.C. 7412(i)(4)) and according to Proclamation 10958 of July 17, 2025, the Permittee is exempt from compliance with the May 6, 2024, amendments to 40 CFR pt. 63, subp. RRRRR (89 FR 16408) (Taconite MACT amendments) for a period of two years beyond the Taconite MACT amendments' relevant compliance dates. This exemption applies to all compliance deadlines established under the Taconite MACT amendments, with each such deadline extended by two years from the date originally required for such deadline. The effect of this exemption is that, during each such 2-year period, the Permittee is subject to the emissions and compliance obligations that they are currently subject to under 40 CFR pt. 63, subp. RRRRR as that standard existed prior to the Taconite MACT amendments. A copy of the presidential proclamation, as published in the Federal Register on July 23, 2025 (90 FR 34743), is included in

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	Appendix O. [40 CFR 63.4(a)(1), 40 CFR 63.6(j), 40 CFR 63.6(a)(1)(ii), 40 CFR pt. 63, subp. RRRRR, Minn. R. 7011.8030]
5.225.21	In addition to the other applicable requirements from 40 CFR pt. 63, subp. RRRRR found elsewhere in this permit, if the Permittee elects to demonstrate compliance with the mercury emission limit using a mercury CEMS, the Permittee is not required by 40 CFR pt. 63, subp. RRRRR to conduct performance testing for mercury or to establish and comply with operating limits for control devices used to reduce mercury emissions, and the Permittee must: - conduct a performance evaluation of each CEMS within 180 days of installation of the monitoring system, in accordance with 40 CFR 63.9620(k)(2); - determine compliance with the applicable mercury emission limit by using a 30-day rolling average of the 1-hour arithmetic average CEMS data, including CEMS data during startup and shutdown, in accordance with 40 CFR 63.9621(e); - calculate the 30-day rolling average of 1-hour arithmetic average emission concentrations, including CEMS data during startup and shutdown, in accordance with 40 CFR 63.9623(e); - comply with the requirements in 40 CFR 63.9631(k)(1)-(5); - comply with the requirements if 40 CFR 63.9634(j)(1); - must submit the results of the performance evaluation following the procedure specified in either 40 CFR 63.9641(i)(1) or (2) within 60 days after the date of completing each CEMS performance evaluation; - keep the applicable records specified in 40 CFR 63.9642(b)(1) through (5); and - keep records of the notifications required in 40 CFR 63.9642(f). Under authority provided in Section 112(i)(4) of the Clean Air Act (42 U.S.C. 7412(i)(4)) and according to Proclamation 10958 of July 17, 2025, the Permittee is exempt from compliance with the May 6, 2024, amendments to 40 CFR pt. 63, subp. RRRRR (89 FR 16408) (Taconite MACT amendments) for a period of two years beyond the Taconite MACT amendments' relevant compliance dates. This exemption applies to all compliance deadlines established under the Taconite MACT amendments, with each such deadline extended by two years from the date originally required for such deadline. The effect of this exemption is that, during each such 2-year period, the Permittee is subject to the emissions and compliance obligations that they are currently subject to under 40 CFR pt. 63, subp. RRRRR as that standard existed prior to the Taconite MACT amendments. A copy of the presidential proclamation, as published in the Federal Register on July 23, 2025 (90 FR 34743), is included in Appendix O. [40 CFR 63.4(a)(1), 40 CFR 63.6(j), 40 CFR 63.6(a)(1)(ii), 40 CFR pt. 63, subp. RRRRR, Minn. R. 7011.8030]
5.225.22	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. A as follows: 40 CFR 63.1(a); 40 CFR 63.1(b)(1); 40 CFR 63.1(b)(3); 40 CFR 63.1(c)(1); 40 CFR 63.1(c)(2); 40 CFR 63.1(c)(6); 40 CFR 63.2; 40 CFR 63.3; 40 CFR 63.4(a); 40 CFR 63.4(b); 40 CFR 63.4(c); 40 CFR 63.5(a); 40 CFR 63.5(b); 40 CFR 63.5(d); 40 CFR 63.5(e);

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	40 CFR 63.5(f);
	40 CFR 63.6(a)(1);
	40 CFR 63.6(b)(1);
	40 CFR 63.6(b)(2);
	40 CFR 63.6(b)(3);
	40 CFR 63.6(b)(4);
	40 CFR 63.6(b)(5);
	40 CFR 63.6(c)(1);
	40 CFR 63.6(c)(2);
	40 CFR 63.6(e)(1);
	40 CFR 63.6(f)(2);
	40 CFR 63.6(f)(3);
	40 CFR 63.6(g);
	40 CFR 63.6(i)(1);
	40 CFR 63.6(i)(2);
	40 CFR 63.6(i)(3);
	40 CFR 63.6(i)(4);
	40 CFR 63.6(i)(5);
	40 CFR 63.6(i)(6);
	40 CFR 63.6(i)(8);
	40 CFR 63.6(i)(9);
	40 CFR 63.6(i)(11);
	40 CFR 63.6(j);
	40 CFR 63.7(a)(3);
	40 CFR 63.7(a)(4);
	40 CFR 63.7(b);
	40 CFR 63.7(c);
	40 CFR 63.7(d);
	40 CFR 63.7(f);
	40 CFR 63.7(g);
	40 CFR 63.7(h);
	40 CFR 63.8(b)(1);
	40 CFR 63.8(b)(2);
	40 CFR 63.8(b)(3);
	40 CFR 63.8(c);
	40 CFR 63.8(d);
	40 CFR 63.8(e);
	40 CFR 63.8(f);
	40 CFR 63.8(g);
	40 CFR 63.9(b)(1);
	40 CFR 63.9(b)(2);
	40 CFR 63.9(b)(4);
	40 CFR 63.9(b)(5);
	40 CFR 63.9(c);
	40 CFR 63.9(d);
	40 CFR 63.9(e);
	40 CFR 63.9(f);
	40 CFR 63.9(g);
	40 CFR 63.9(h);
	40 CFR 63.9(i);
	40 CFR 63.9(j);

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	40 CFR 63.9(k); 40 CFR 63.10(a)(5); 40 CFR 63.10(a)(6); 40 CFR 63.10(a)(7); 40 CFR 63.10(b)(1); 40 CFR 63.10(b)(2)(iii); 40 CFR 63.10(b)(2)(vi)-(viii); 40 CFR 63.10(b)(2)(ix); 40 CFR 63.10(b)(2)(x); 40 CFR 63.10(b)(2)(xi); 40 CFR 63.10(b)(2)(xii); 40 CFR 63.10(b)(2)(xiv); 40 CFR 63.10(b)(3); 40 CFR 63.10(c); 40 CFR 63.10(d)(1); 40 CFR 63.10(d)(2); 40 CFR 63.10(d)(4); 40 CFR 63.10(e); 40 CFR 63.10(f); 40 CFR 63.12; 40 CFR 63.13; 40 CFR 63.14; 40 CFR 63.15(a); and 40 CFR 63.15(b). A copy of 40 CFR pt. 63, subp. A is included in Appendix H. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. A, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.0050, subp. 1(B), Minn. R. 7017.1010 & 7017.2025, Minn. R. 7019.0100]
5.225.23	Bypass Event: During any period in which a bypass stack is open, the Permittee is prohibited from feeding greenballs/pellets to EQU 279 and fuel use is limited to natural gas. [Minn. R. 7007.0800, subp. 2(A)]
5.225.24	Bypass Event Recordkeeping: The Permittee shall record the following each time a bypass event occurs; - Beginning date and time of event - End date and time of event - Duration of event (min) - Reason for bypass event - Fuel type combusted during event - Greenball/pellet feed rate during event. [Minn. R. 7007.0800, subps. 4-5]
5.225.25	Fuel Sampling: The Permittee shall obtain and maintain a fuel supplier certification of the sulfur weight percent and heating value for each shipment of liquid or solid fuel. In absence of fuel certification, the Permittee shall sample liquid or solid fuel after each delivery but not more than once each calendar week, when multiple deliveries are made. Current ASTM method(s) must be used to determine sulfur content in percent by weight and fuel heating value. The Permittee shall maintain records of fuel deliveries and analysis results. [Minn. R. 7007.0800, subps. 4-5]

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EQUI 280	L5 Rotary Kiln
5.226.1	The Permittee shall vent emissions from EQUI 280 to control equipment meeting the requirements of TREA 38 whenever EQUI 280 operates. [Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
5.226.2	Fuel Restrictions: The Permittee shall combust at the kiln burner natural gas, fuel oil, and/or types of biomass that are specified in Appendix N of this permit; and at the preheat burners natural gas. Other fuels, as allowed under 40 CFR Part 241, may be combusted for a short period of time during a trial burn as specified and approved by a major amendment to this permit. [Minn. R. 7007.0800, subp. 2, Title I Condition: 40 CFR 52.21(j)(BACT) and Minn. R. 7007.3000]
5.226.3	Fluorides <= 1.62 pounds per hour 3-hour average. [Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
5.226.4	Carbon Monoxide <= 98.6 pounds per hour 3-hour average. [Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
5.226.5	Volatile Organic Compounds <= 74.0 pounds per hour 3-hour average. [Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
5.226.6	The Permittee shall keep records of fuel purchases showing fuel types. [Minn. R. 7007.0800, subp. 2, Title I Condition: 40 CFR 52.21(j)(BACT) and Minn. R. 7007.3000]
5.226.7	Temperature >= 1400 degrees Fahrenheit 3-hour rolling average monitored at the kiln exit. This limit does not apply during EQUI 280 startup or shutdown. If the 3-hour rolling average operating temperature is below the minimum temperature limit, this must be reported as a deviation. [Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
5.226.8	Kiln exit temperature continuous monitoring. The Permittee must install, maintain, and operate at all times a temperature monitoring device(s) at the kiln exit. A minimum of one thermocouple shall be installed at the kiln exit. Each temperature monitoring device shall be certified by the manufacturer to have an accuracy of +/-5% over its operating range. The temperature monitoring device shall be operated continuously, and data recorded during all periods of operation. Continuously is defined as determining at least one data point in each 15-minute time interval. [Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
5.226.9	The Permittee must maintain a continuous hard copy readout or computer disk file of the temperature readings and calculated 3-hour rolling average temperature at the kiln exit. [Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
5.226.10	Burner and grate inspections. The Permittee must inspect the kiln and grate burners every 18 months. Each inspection must be conducted no more than 18 months after the previous inspection. The inspection must verify at a minimum: -proper alignment of kiln burners and grate burners; and -good operating condition of combustion air fans for the kiln burners and grate burners. The Permittee must keep a written record of the inspection and any action resulting from the inspection. [Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
5.226.11	Opacity <= 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity. [Minn. R. 7011.0610, subp. 1(A)(2)]
5.226.12	Sulfur Dioxide <= 2.0 pounds per million Btu heat input when burning liquid fossil fuels. If more than one fuel is burned simultaneously, calculate the emission limit as indicated in Minn. R. 7011.0605. The potential to emit from the unit is 0.396 lb/MMBtu due to equipment design and allowable fuels. [Minn. R. 7011.0610, subp. 2]
5.226.13	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0610, subp. 1(A)(1)]

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5.226.14	The Permittee must limit Filterable Particulate Matter ≤ 0.01 grains per dry standard cubic foot 3-hour average measured as a flow-weighted mean concentration for all stacks from the indurating furnace. The Permittee must determine the flow-weighted mean concentration of front-half particulate matter emissions following the procedures in 40 CFR Section 63.9621(c). [40 CFR 63.9590(a), 40 CFR 63.9621(c), 40 CFR 63.9634(c)(1), 40 CFR pt. 63, subp. RRRRR(Table 1)(Item 3)Existing, Minn. R. 7011.8030]
5.226.15	The Permittee must limit Mercury ≤ 0.000014 pound per long ton of pellets produced by March 8, 2027. Under authority provided in Section 112(i)(4) of the Clean Air Act (42 U.S.C. 7412(i)(4)) and according to Proclamation 10958 of July 17, 2025, the Permittee is exempt from compliance with the May 6, 2024, amendments to 40 CFR pt. 63, subp. RRRRR (89 FR 16408) (Taconite MACT amendments) for a period of two years beyond the Taconite MACT amendments' relevant compliance dates. This exemption applies to all compliance deadlines established under the Taconite MACT amendments, with each such deadline extended by two years from the date originally required for such deadline. The effect of this exemption is that, during each such 2-year period, the Permittee is subject to the emissions and compliance obligations that they are currently subject to under 40 CFR pt. 63, subp. RRRRR as that standard existed prior to the Taconite MACT amendments. A copy of the presidential proclamation, as published in the Federal Register on July 23, 2025 (90 FR 34743), is included in Appendix O. [40 CFR 63.4(a)(1), 40 CFR 63.6(j), 40 CFR 63.6(a)(1)(ii), 40 CFR 63.9583(f)(1), 40 CFR 63.9590(a), 40 CFR pt. 63, subp. RRRRR(Table 2)(Item 1), Minn. R. 7011.8030]
5.226.16	The Permittee must limit Hydrogen Chloride ≤ 0.046 pound per long ton of pellets produced by March 8, 2027. Under authority provided in Section 112(i)(4) of the Clean Air Act (42 U.S.C. 7412(i)(4)) and according to Proclamation 10958 of July 17, 2025, the Permittee is exempt from compliance with the May 6, 2024, amendments to 40 CFR pt. 63, subp. RRRRR (89 FR 16408) (Taconite MACT amendments) for a period of two years beyond the Taconite MACT amendments' relevant compliance dates. This exemption applies to all compliance deadlines established under the Taconite MACT amendments, with each such deadline extended by two years from the date originally required for such deadline. The effect of this exemption is that, during each such 2-year period, the Permittee is subject to the emissions and compliance obligations that they are currently subject to under 40 CFR pt. 63, subp. RRRRR as that standard existed prior to the Taconite MACT amendments. A copy of the presidential proclamation, as published in the Federal Register on July 23, 2025 (90 FR 34743), is included in Appendix O. [40 CFR 63.4(a)(1), 40 CFR 63.6(j), 40 CFR 63.6(a)(1)(ii), 40 CFR 63.9583(f)(1), 40 CFR 63.9590(a), 40 CFR pt. 63, subp. RRRRR(Table 3)(Item 1), Minn. R. 7011.8030]
5.226.17	The Permittee must limit Hydrogen fluoride ≤ 0.012 pound per long ton of pellets produced by March 8, 2027. Under authority provided in Section 112(i)(4) of the Clean Air Act (42 U.S.C. 7412(i)(4)) and according to Proclamation 10958 of July 17, 2025, the Permittee is exempt from compliance with the May 6, 2024, amendments to 40 CFR pt. 63, subp. RRRRR (89 FR 16408) (Taconite MACT amendments) for a period of two years beyond the Taconite MACT amendments' relevant compliance dates. This exemption applies to all compliance deadlines established under the Taconite MACT amendments, with each such deadline extended by two years from the date originally required for such deadline. The effect of this exemption is that, during each such 2-year period, the Permittee is subject to the emissions and compliance obligations that they are currently subject to under 40 CFR pt. 63, subp. RRRRR as that standard existed prior to the Taconite MACT amendments. A copy of the presidential proclamation, as published in the Federal Register on July 23, 2025 (90 FR 34743), is included in Appendix O. [40 CFR 63.4(a)(1), 40 CFR 63.6(j), 40 CFR 63.6(a)(1)(ii), 40 CFR 63.9583(f)(1), 40 CFR

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	63.9590(a), 40 CFR pt. 63, subp. RRRRR(Table 3)(Item 1), Minn. R. 7011.8030]
5.226.18	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9581; 40 CFR 63.9582(a)-(d); 40 CFR 63.9583(a),(e), & (f); 40 CFR 63.9590(a); 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(4); 40 CFR 63.9610(a),(c) & (d); 40 CFR 63.9621(a) & (c); 40 CFR 63.9623(a)(5)-(8); 40 CFR 63.9630(b); 40 CFR 63.9633; 40 CFR 63.9634(a) & (c); 40 CFR 63.9636(a)(4); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9640(a),(d) & (e); 40 CFR 63.9641(a)-(h); 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; 40 CFR 63.9650; 40 CFR 63.9652; 40 CFR pt. 63, subp. RRRRR, Table 1, Item 3 (Existing); 40 CFR pt. 63, subp. RRRRR, Table 2, Item 1(1)(individual limit); 40 CFR pt. 63, subp. RRRRR, Table 3, Item 1; and 40 CFR pt. 63, subp. RRRRR, Table 4, as specified elsewhere in this permit. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. Under authority provided in Section 112(i)(4) of the Clean Air Act (42 U.S.C. 7412(i)(4)) and according to Proclamation 10958 of July 17, 2025, the Permittee is exempt from compliance with the May 6, 2024, amendments to 40 CFR pt. 63, subp. RRRRR (89 FR 16408) (Taconite MACT amendments) for a period of two years beyond the Taconite MACT amendments' relevant compliance dates. This exemption applies to all compliance deadlines established under the Taconite MACT amendments, with each such deadline extended by two years from the date originally required for such deadline. The effect of this exemption is that, during each such 2-year period, the Permittee is subject to the emissions and compliance obligations that they are currently subject to under 40 CFR pt. 63, subp. RRRRR as that standard existed prior to the Taconite MACT amendments. A copy of the presidential proclamation, as published in the Federal Register on July 23, 2025 (90 FR 34743), is included in Appendix O. [40 CFR 63.4(a)(1), 40 CFR 63.6(j), 40 CFR 63.6(a)(1)(ii), 40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.226.19	In addition to the other applicable requirements from 40 CFR pt. 63, subp. RRRRR found elsewhere in this permit, to demonstrate compliance with the hydrogen chloride and hydrogen fluoride emission

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	limits in Table 3 of 40 CFR pt. 63, subp. RRRRR, the Permittee must: - meet the applicable hydrogen chloride and hydrogen fluoride emission limits in Table 3 of 40 CFR pt. 63, subp. RRRRR by March 8, 2027; - meet the applicable operating limits for control devices used to meet the applicable hydrogen chloride and hydrogen fluoride emission limits; - conduct initial performance tests for hydrogen chloride and hydrogen fluoride on all stacks associated with each indurating furnace no later than 180 calendar days after March 8, 2027, in accordance with 40 CFR 63.9620(l); - determine compliance with the applicable hydrogen chloride and hydrogen fluoride emission limits by following the applicable test methods and procedures in 40 CFR 63.9621(d)(1) through (9); - submit a site-specific monitoring plan in accordance with 40 CFR 63.9631(i), if applicable; - establish applicable site-specific operating limits according to the procedures in 40 CFR 63.9622(g) and (i); - demonstrate initial compliance in accordance with 40 CFR 63.9623(c)(1) and (3); - conduct subsequent performance test in accordance with 40 CFR 63.9630(b); - install, operate, and maintain a continuous parameter monitoring system and monitor the applicable operating parameters, in accordance with 40 CFR 63.9631(f) and (h); - develop and make available for inspection upon request a site-specific monitoring plan that addresses the requirements in 40 CFR 63.9632(b)(1) through (7); - must meet the requirements for each CPMS in 40 CFR 63.9632(c)(1) and (2); - must conduct a performance evaluation of each CPMS and maintain the CPMS in continuous operation in accordance with your site-specific monitoring plan; - meet the applicable requirements for continuous parameter monitoring systems in 40 CFR 63.9632(g) through (i); - demonstrate continuous compliance in accordance with the applicable requirements of 40 CFR 63.9634(i)(1) and (2), (k), and (l); - demonstrate continuous compliance with the operation and maintenance requirements by completing the applicable requirements of 40 CFR 63.9636(a)(1) through (4); - submit a notification of compliance status in accordance with 40 CFR 63.9640(e); and - keep all applicable records listed in 40 CFR 63.9642. Under authority provided in Section 112(i)(4) of the Clean Air Act (42 U.S.C. 7412(i)(4)) and according to Proclamation 10958 of July 17, 2025, the Permittee is exempt from compliance with the May 6, 2024, amendments to 40 CFR pt. 63, subp. RRRRR (89 FR 16408) (Taconite MACT amendments) for a period of two years beyond the Taconite MACT amendments' relevant compliance dates. This exemption applies to all compliance deadlines established under the Taconite MACT amendments, with each such deadline extended by two years from the date originally required for such deadline. The effect of this exemption is that, during each such 2-year period, the Permittee is subject to the emissions and compliance obligations that they are currently subject to under 40 CFR pt. 63, subp. RRRRR as that standard existed prior to the Taconite MACT amendments. A copy of the presidential proclamation, as published in the Federal Register on July 23, 2025 (90 FR 34743), is included in Appendix O. [40 CFR 63.4(a)(1), 40 CFR 63.6(j), 40 CFR 63.6(a)(1)(ii), 40 CFR pt. 63, subp. RRRRR, Minn. R. 7011.8030]
5.226.20	In addition to the other applicable requirements from 40 CFR pt. 63, subp. RRRRR found elsewhere in this permit, if the Permittee elects not to demonstrate compliance with the mercury emission limit using a mercury CEMS, the Permittee must: - meet the applicable mercury emission limit in Table 2 of 40 CFR pt. 63, subp. RRRRR by March 8, 2027; - meet the applicable operating limits for control devices used to meet the applicable mercury emission limit; - conduct initial performance tests for mercury on all stacks associated with each indurating furnace

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	no later than 180 calendar days after March 8, 2027, in accordance with 40 CFR 63.9620(k)(1); - determine compliance with the applicable mercury emission limit by following the applicable test methods and procedures in 40 CFR 63.9621(d)(1) through (9); - submit a site-specific monitoring plan in accordance with 40 CFR 63.9631(i), if applicable; - establish applicable site-specific operating limits according to the procedures in 40 CFR 63.9622(h); - demonstrate initial compliance in accordance with 40 CFR 63.9623(c)(2); - conduct subsequent performance test in accordance with 40 CFR 63.9630(b); - install, operate, and maintain a continuous parameter monitoring system and monitor the applicable operating parameters, in accordance with 40 CFR 63.9631(g) and (j); - develop and make available for inspection upon request a site-specific monitoring plan that addresses the requirements in 40 CFR 63.9632(b)(1) through (7); - must meet the requirements for each CPMS in 40 CFR 63.9632(c)(1) and (2); - must conduct a performance evaluation of each CPMS and maintain the CPMS in continuous operation in accordance with your site-specific monitoring plan; - meet the applicable requirements for continuous parameter monitoring systems in 40 CFR 63.9632(h) and (i); - demonstrate continuous compliance in accordance with the applicable requirements of 40 CFR 63.9634(j)(1) and (2), (k), (l), and (n); - demonstrate continuous compliance with the operation and maintenance requirements by completing the applicable requirements of 40 CFR 63.9636(a)(1) through (4); - submit a notification of compliance status in accordance with 40 CFR 63.9640(e); and - keep all applicable records listed in 40 CFR 63.9642. Under authority provided in Section 112(i)(4) of the Clean Air Act (42 U.S.C. 7412(i)(4)) and according to Proclamation 10958 of July 17, 2025, the Permittee is exempt from compliance with the May 6, 2024, amendments to 40 CFR pt. 63, subp. RRRRR (89 FR 16408) (Taconite MACT amendments) for a period of two years beyond the Taconite MACT amendments' relevant compliance dates. This exemption applies to all compliance deadlines established under the Taconite MACT amendments, with each such deadline extended by two years from the date originally required for such deadline. The effect of this exemption is that, during each such 2-year period, the Permittee is subject to the emissions and compliance obligations that they are currently subject to under 40 CFR pt. 63, subp. RRRRR as that standard existed prior to the Taconite MACT amendments. A copy of the presidential proclamation, as published in the Federal Register on July 23, 2025 (90 FR 34743), is included in Appendix O. [40 CFR 63.4(a)(1), 40 CFR 63.6(j), 40 CFR 63.6(a)(1)(ii), 40 CFR pt. 63, subp. RRRRR, Minn. R. 7011.8030]
5.226.21	In addition to the other applicable requirements from 40 CFR pt. 63, subp. RRRRR found elsewhere in this permit, if the Permittee elects to demonstrate compliance with the mercury emission limit using a mercury CEMS, the Permittee is not required by 40 CFR pt. 63, subp. RRRRR to conduct performance testing for mercury or to establish and comply with operating limits for control devices used to reduce mercury emissions, and the Permittee must: - conduct a performance evaluation of each CEMS within 180 days of installation of the monitoring system, in accordance with 40 CFR 63.9620(k)(2); - determine compliance with the applicable mercury emission limit by using a 30-day rolling average of the 1-hour arithmetic average CEMS data, including CEMS data during startup and shutdown, in accordance with 40 CFR 63.9621(e); - calculate the 30-day rolling average of 1-hour arithmetic average emission concentrations, including CEMS data during startup and shutdown, in accordance with 40 CFR 63.9623(e); - comply with the requirements in 40 CFR 63.9631(k)(1)-(5); - comply with the requirements if 40 CFR 63.9634(j)(1); - must submit the results of the performance evaluation following the procedure specified in either 40 CFR 63.9641(i)(1) or (2) within 60 days after the date of completing each CEMS performance

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	evaluation; - keep the applicable records specified in 40 CFR 63.9642(b)(1) through (5); and - keep records of the notifications required in 40 CFR 63.9642(f). Under authority provided in Section 112(i)(4) of the Clean Air Act (42 U.S.C. 7412(i)(4)) and according to Proclamation 10958 of July 17, 2025, the Permittee is exempt from compliance with the May 6, 2024, amendments to 40 CFR pt. 63, subp. RRRRR (89 FR 16408) (Taconite MACT amendments) for a period of two years beyond the Taconite MACT amendments' relevant compliance dates. This exemption applies to all compliance deadlines established under the Taconite MACT amendments, with each such deadline extended by two years from the date originally required for such deadline. The effect of this exemption is that, during each such 2-year period, the Permittee is subject to the emissions and compliance obligations that they are currently subject to under 40 CFR pt. 63, subp. RRRRR as that standard existed prior to the Taconite MACT amendments. A copy of the presidential proclamation, as published in the Federal Register on July 23, 2025 (90 FR 34743), is included in Appendix O. [40 CFR 63.4(a)(1), 40 CFR 63.6(j), 40 CFR 63.6(a)(1)(ii), 40 CFR pt. 63, subp. RRRRR, Minn. R. 7011.8030]
5.226.22	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. A as follows: 40 CFR 63.1(a); 40 CFR 63.1(b)(1); 40 CFR 63.1(b)(3); 40 CFR 63.1(c)(1); 40 CFR 63.1(c)(2); 40 CFR 63.1(c)(6); 40 CFR 63.2; 40 CFR 63.3; 40 CFR 63.4(a); 40 CFR 63.4(b); 40 CFR 63.4(c); 40 CFR 63.5(a); 40 CFR 63.5(b); 40 CFR 63.5(d); 40 CFR 63.5(e); 40 CFR 63.5(f); 40 CFR 63.6(a)(1); 40 CFR 63.6(b)(1); 40 CFR 63.6(b)(2); 40 CFR 63.6(b)(3); 40 CFR 63.6(b)(4); 40 CFR 63.6(b)(5); 40 CFR 63.6(c)(1); 40 CFR 63.6(c)(2); 40 CFR 63.6(e)(1); 40 CFR 63.6(f)(2); 40 CFR 63.6(f)(3); 40 CFR 63.6(g); 40 CFR 63.6(i)(1); 40 CFR 63.6(i)(2); 40 CFR 63.6(i)(3); 40 CFR 63.6(i)(4); 40 CFR 63.6(i)(5);

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	40 CFR 63.6(i)(6);
	40 CFR 63.6(i)(8);
	40 CFR 63.6(i)(9);
	40 CFR 63.6(i)(11);
	40 CFR 63.6(j);
	40 CFR 63.7(a)(3);
	40 CFR 63.7(a)(4);
	40 CFR 63.7(b);
	40 CFR 63.7(c);
	40 CFR 63.7(d);
	40 CFR 63.7(f);
	40 CFR 63.7(g);
	40 CFR 63.7(h);
	40 CFR 63.8(b)(1);
	40 CFR 63.8(b)(2);
	40 CFR 63.8(b)(3);
	40 CFR 63.8(c);
	40 CFR 63.8(d);
	40 CFR 63.8(e);
	40 CFR 63.8(f);
	40 CFR 63.8(g);
	40 CFR 63.9(b)(1);
	40 CFR 63.9(b)(2);
	40 CFR 63.9(b)(4);
	40 CFR 63.9(b)(5);
	40 CFR 63.9(c);
	40 CFR 63.9(d);
	40 CFR 63.9(e);
	40 CFR 63.9(f);
	40 CFR 63.9(g);
	40 CFR 63.9(h);
	40 CFR 63.9(i);
	40 CFR 63.9(j);
	40 CFR 63.9(k);
	40 CFR 63.10(a)(5);
	40 CFR 63.10(a)(6);
	40 CFR 63.10(a)(7);
	40 CFR 63.10(b)(1);
	40 CFR 63.10(b)(2)(iii);
	40 CFR 63.10(b)(2)(vi)-(viii);
	40 CFR 63.10(b)(2)(ix);
	40 CFR 63.10(b)(2)(x);
	40 CFR 63.10(b)(2)(xi);
	40 CFR 63.10(b)(2)(xii);
	40 CFR 63.10(b)(2)(xiv);
	40 CFR 63.10(b)(3);
	40 CFR 63.10(c);
	40 CFR 63.10(d)(1);
	40 CFR 63.10(d)(2);
	40 CFR 63.10(d)(4);
	40 CFR 63.10(e);

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	40 CFR 63.10(f); 40 CFR 63.12; 40 CFR 63.13; 40 CFR 63.14; 40 CFR 63.15(a); and 40 CFR 63.15(b). A copy of 40 CFR pt. 63, subp. A is included in Appendix H. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. A, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.0050, subp. 1(B), Minn. R. 7017.1010 & 7017.2025, Minn. R. 7019.0100]
5.226.23	Bypass Event: During any period in which a bypass stack is open, the Permittee is prohibited from feeding greenballs/pellets to EQU 280 and fuel use is limited to natural gas. [Minn. R. 7007.0800, subp. 2(A)]
5.226.24	Bypass Event Recordkeeping: The Permittee shall record the following each time a bypass event occurs; - Beginning date and time of event - End date and time of event - Duration of event (min) - Reason for bypass event - Fuel type combusted during event - Greenball/pellet feed rate during event. [Minn. R. 7007.0800, subps. 4-5]
5.226.25	Fuel Sampling: The Permittee shall obtain and maintain a fuel supplier certification of the sulfur weight percent and heating value for each shipment of liquid or solid fuel. In absence of fuel certification, the Permittee shall sample liquid or solid fuel after each delivery but not more than once each calendar week, when multiple deliveries are made. Current ASTM method(s) must be used to determine sulfur content in percent by weight and fuel heating value. The Permittee shall maintain records of fuel deliveries and analysis results. [Minn. R. 7007.0800, subps. 4-5]
EQUI 281	Step III Coarse Crusher Pan Feeders
5.227.1	The Permittee shall vent emissions from EQUI 281 in parallel to control equipment meeting the requirements of TREA 120, and TREA 121 whenever EQUI 281 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.227.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.227.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 282	Zinc Melt Furnace
5.228.1	Opacity <= 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity. [Minn. R. 7011.0610, subp. 1(A)(2)]
5.228.2	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0610, subp. 1(A)(1)]
5.228.3	Fuel type: Natural gas only, by design. [Minn. R. 7005.0100, subp. 35a]
5.228.4	The Permittee shall keep records of fuel purchases showing fuel types. [Minn. R. 7007.0800, subp. 5]

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EQUI 283	Secondary Crusher L5
5.229.1	The Permittee shall vent emissions from EQUI 283 to control equipment meeting the requirements of TREA 267 whenever EQUI 283 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.229.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.229.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 284	Conveyor Transfer 008-009
5.230.1	The Permittee shall vent emissions from EQUI 284 to control equipment meeting the requirements of TREA 230 whenever EQUI 284 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.230.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.230.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 285	Secondary Crusher L12
5.231.1	The Permittee shall vent emissions from EQUI 285 to control equipment meeting the requirements of TREA 58 whenever EQUI 285 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.231.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.231.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 286	Secondary Crusher L13
5.232.1	The Permittee shall vent emissions from EQUI 286 to control equipment meeting the requirements of TREA 59 whenever EQUI 286 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.232.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.232.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 287	Secondary Crusher L15
5.233.1	The Permittee shall vent emissions from EQUI 287 to control equipment meeting the requirements of TREA 61 whenever EQUI 287 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.233.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.233.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 288	Conveyor Transfer 003
5.234.1	The Permittee shall vent emissions from EQUI 288 to control equipment meeting the requirements of TREA 63 whenever EQUI 288 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.234.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]

Requirement number	Requirement and citation
5.234.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 289	Conveyor Transfer 003
5.235.1	The Permittee shall vent emissions from EQUI 289 to control equipment meeting the requirements of TREA 63 whenever EQUI 289 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.235.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.235.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 290	Conveyor Transfer 003-004
5.236.1	The Permittee shall vent emissions from EQUI 290 to control equipment meeting the requirements of TREA 64 whenever EQUI 290 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.236.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.236.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 291	Tertiary Storage 006-080 Bin
5.237.1	The Permittee shall vent emissions from EQUI 291 to control equipment meeting the requirements of TREA 65 whenever EQUI 291 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.237.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.237.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 292	Tertiary Storage 006-080 Bin
5.238.1	The Permittee shall vent emissions from EQUI 292 to control equipment meeting the requirements of TREA 65 whenever EQUI 292 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.238.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.238.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 293	Tertiary Storage 006-080 Bin
5.239.1	The Permittee shall vent emissions from EQUI 293 to control equipment meeting the requirements of TREA 65 whenever EQUI 293 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.239.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.239.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 297	Tertiary Crusher L18
5.240.1	The Permittee shall vent emissions from EQUI 297 to control equipment meeting the requirements of

Requirement number	Requirement and citation
	TREA 66 whenever EQUI 297 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.240.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.240.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 298	Tertiary Crusher L19
5.241.1	The Permittee shall vent emissions from EQUI 298 to control equipment meeting the requirements of TREA 67 whenever EQUI 298 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.241.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.241.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 299	Tertiary Crusher L20
5.242.1	The Permittee shall vent emissions from EQUI 299 to control equipment meeting the requirements of TREA 68 whenever EQUI 299 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.242.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.242.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 300	Tertiary Crusher L21
5.243.1	The Permittee shall vent emissions from EQUI 300 to control equipment meeting the requirements of TREA 69 whenever EQUI 300 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.243.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.243.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 301	Tertiary Crusher L22
5.244.1	The Permittee shall vent emissions from EQUI 301 to control equipment meeting the requirements of TREA 70 whenever EQUI 301 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.244.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.244.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 303	Tertiary Crusher L24
5.245.1	The Permittee shall vent emissions from EQUI 303 to control equipment meeting the requirements of TREA 72 whenever EQUI 303 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.245.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.245.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]

Requirement number	Requirement and citation
EQUI 304	Tertiary Crusher L25
5.246.1	The Permittee shall vent emissions from EQUI 306 to control equipment meeting the requirements of TREA 75 whenever EQUI 306 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.246.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.246.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 305	Tertiary Crusher L26
5.247.1	The Permittee shall vent emissions from EQUI 305 to control equipment meeting the requirements of TREA 74 whenever EQUI 305 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.247.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.247.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 309	Conveyor Transfer 005-006
5.248.1	The Permittee shall vent emissions from EQUI 309 to control equipment meeting the requirements of TREA 215 whenever EQUI 309 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.248.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.248.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 310	Conveyor Transfer 005-006
5.249.1	The Permittee shall vent emissions from EQUI 310 to control equipment meeting the requirements of TREA 215 whenever EQUI 310 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.249.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.249.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 311	Zinc Melt Furnace
5.250.1	Opacity <= 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity. [Minn. R. 7011.0610, subp. 1(A)(2)]
5.250.2	Sulfur Dioxide <= 2.0 pounds per million Btu heat input when burning liquid fossil fuels. If more than one fuel is burned simultaneously, calculate the emission limit as indicated in Minn. R. 7011.0605. The potential to emit from the unit is 0.5 lb/MMBtu due to equipment design and allowable fuels. [Minn. R. 7011.0610, subp. 2]
5.250.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0610, subp. 1(A)(1)]
5.250.4	Fuel type: Natural gas and No. 2 fuel oil only, by design. [Minn. R. 7005.0100, subp. 35a]
5.250.5	The Permittee shall keep records of fuel purchases showing fuel types. [Minn. R. 7007.0800, subp. 5]
EQUI 312	Zinc Melt Furnace

Requirement number	Requirement and citation
5.251.1	Opacity <= 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity. [Minn. R. 7011.0610, subp. 1(A)(2)]
5.251.2	Sulfur Dioxide <= 2.0 pounds per million Btu heat input when burning liquid fossil fuels. The potential to emit from the unit is 0.51 lb/MMBtu due to equipment design and allowable fuels. [Minn. R. 7011.0610, subp. 2]
5.251.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0610, subp. 1(A)(1)]
5.251.4	Fuel type: Natural gas and No. 2 Fuel Oil only, by design. [Minn. R. 7005.0100, subp. 35a]
5.251.5	The Permittee shall keep records of fuel purchases showing fuel types. [Minn. R. 7007.0800, subp. 5]
5.251.6	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 313	Conveyor Transfer 009-020
5.252.1	The Permittee shall vent emissions from EQUI 313 to control equipment meeting the requirements of TREA 229 whenever EQUI 313 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.252.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.252.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 314	Conveyor Transfer 009-020
5.253.1	The Permittee shall vent emissions from EQUI 314 to control equipment meeting the requirements of TREA 229 whenever EQUI 314 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.253.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.253.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 315	L4 Conveyor Transfer 041/046 to 042 Belts
5.254.1	The Permittee shall vent emissions from EQUI 315 to control equipment meeting the requirements of TREA 105 whenever EQUI 315 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.254.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.254.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 316	L5 Bentonite Day Bins
5.255.1	The Permittee shall vent emissions from EQUI 316 to control equipment meeting the requirements of TREA 110 whenever EQUI 316 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.255.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.255.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]

Requirement number	Requirement and citation
EQUI 317	Zinc Melt Furnace
5.256.1	Opacity <= 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity. [Minn. R. 7011.0610, subp. 1(A)(2)]
5.256.2	Sulfur Dioxide <= 2.0 pounds per million Btu heat input when burning liquid fossil fuels. The potential to emit from the unit is 0.51 lb/MMBtu due to equipment design and allowable fuels. [Minn. R. 7011.0610, subp. 2]
5.256.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0610, subp. 1(A)(1)]
5.256.4	Fuel type: Natural gas only, by design. [Minn. R. 7005.0100, subp. 35a]
5.256.5	The Permittee shall keep records of fuel purchases showing fuel types. [Minn. R. 7007.0800, subp. 5]
EQUI 318	Conveyor Transfer 005-006
5.257.1	The Permittee shall vent emissions from EQUI 318 to control equipment meeting the requirements of TREA 233 whenever EQUI 318 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.257.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.257.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 319	Conveyor Transfer 010-01
5.258.1	The Permittee shall vent emissions from EQUI 319 to control equipment meeting the requirements of TREA 212 whenever EQUI 319 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.258.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.258.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 320	Conveyor Transfer 010-01
5.259.1	The Permittee shall vent emissions from EQUI 320 to control equipment meeting the requirements of TREA 212 whenever EQUI 320 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.259.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.259.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 321	Conveyor Transfer 004-005
5.260.1	The Permittee shall vent emissions from EQUI 321 to control equipment meeting the requirements of TREA 210 whenever EQUI 321 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.260.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.260.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 322	Conveyor Transfer 004-005
5.261.1	The Permittee shall vent emissions from EQUI 322 to control equipment meeting the requirements of

Requirement number	Requirement and citation
	TREA 210 whenever EQUI 322 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.261.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.261.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 323	Conveyor Transfer 004-005
5.262.1	The Permittee shall vent emissions from EQUI 323 to control equipment meeting the requirements of TREA 210 whenever EQUI 323 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.262.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.262.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 324	Conveyor Transfer 011-02/03
5.263.1	The Permittee shall vent emissions from EQUI 324 to control equipment meeting the requirements of TREA 126 whenever EQUI 324 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.263.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.263.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 325	Surge Pile/Reclaim 011-01
5.264.1	The Permittee shall vent emissions from EQUI 325 to control equipment meeting the requirements of TREA 127 whenever EQUI 325 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.264.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.264.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 326	Conveyor Transfer 008 to 009
5.265.1	The Permittee shall vent emissions from EQUI 326 to control equipment meeting the requirements of TREA 221 whenever EQUI 326 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.265.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.265.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 327	Secondary Crusher L1
5.266.1	The Permittee shall vent emissions from EQUI 327 to control equipment meeting the requirements of TREA 223 whenever EQUI 327 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.266.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.266.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]

Requirement number	Requirement and citation
EQUI 328	Secondary Crusher L2
5.267.1	The Permittee shall vent emissions from EQUI 328 to control equipment meeting the requirements of TREA 226 whenever EQUI 328 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.267.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.267.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 329	Secondary Crusher L4
5.268.1	The Permittee shall vent emissions from EQUI 329 to control equipment meeting the requirements of TREA 228 whenever EQUI 329 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.268.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.268.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 330	Conveyor Transfer 005 to 006
5.269.1	The Permittee shall vent emissions from EQUI 330 to control equipment meeting the requirements of TREA 213 whenever EQUI 330 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.269.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.269.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 331	Conveyor Transfer 003 to 004
5.270.1	The Permittee shall vent emissions from EQUI 331 to control equipment meeting the requirements of TREA 222 whenever EQUI 331 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.270.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.270.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 332	Conveyor Transfer 003 to 004
5.271.1	The Permittee shall vent emissions from EQUI 332 to control equipment meeting the requirements of TREA 222 whenever EQUI 332 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.271.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.271.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 333	Conveyor Transfer 003 to 004
5.272.1	The Permittee shall vent emissions from EQUI 333 to control equipment meeting the requirements of TREA 222 whenever EQUI 333 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.272.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]

Requirement number	Requirement and citation
5.272.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 335	Tertiary Crusher L1
5.273.1	The Permittee shall vent emissions from EQUI 335 to control equipment meeting the requirements of TREA 194 whenever EQUI 335 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.273.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.273.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 336	Tertiary Crusher L3
5.274.1	The Permittee shall vent emissions from EQUI 336 to control equipment meeting the requirements of TREA 196 whenever EQUI 336 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.274.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.274.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 337	Tertiary Crusher L5
5.275.1	The Permittee shall vent emissions from EQUI 337 to control equipment meeting the requirements of TREA 198 whenever EQUI 337 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.275.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.275.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 338	Tertiary Crusher L6
5.276.1	The Permittee shall vent emissions from EQUI 338 to control equipment meeting the requirements of TREA 199 whenever EQUI 338 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.276.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.276.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 339	Secondary Crusher L6
5.277.1	The Permittee shall vent emissions from EQUI 339 to control equipment meeting the requirements of TREA 48 whenever EQUI 339 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.277.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.277.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 340	Secondary Crusher L8
5.278.1	The Permittee shall vent emissions from EQUI 340 to control equipment meeting the requirements of

Requirement number	Requirement and citation
	TREA 50 whenever EQUI 340 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.278.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.278.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 341	Secondary Crusher L9
5.279.1	The Permittee shall vent emissions from EQUI 341 to control equipment meeting the requirements of TREA 51 whenever EQUI 341 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.279.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.279.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 342	Conveyor Transfer 008 to 009
5.280.1	The Permittee shall vent emissions from EQUI 342 to control equipment meeting the requirements of TREA 53 whenever EQUI 342 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.280.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.280.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 343	Conveyor Transfer 008 to 009
5.281.1	The Permittee shall vent emissions from EQUI 343 to control equipment meeting the requirements of TREA 55 whenever EQUI 343 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.281.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.281.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 345	L3 Bentonite Blending
5.282.1	The Permittee shall vent emissions from EQUI 345 to control equipment meeting the requirements of TREA 94 whenever EQUI 345 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.282.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.282.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 346	L3 Bentonite Blending
5.283.1	The Permittee shall vent emissions from EQUI 346 to control equipment meeting the requirements of TREA 94 whenever EQUI 346 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.283.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.283.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]

Requirement number	Requirement and citation
EQUI 347	L3 Grate Feed
5.284.1	The Permittee shall vent emissions from EQUI 347 to control equipment meeting the requirements of TREA 172 whenever EQUI 347 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.284.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.284.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 348	L3 Grate Discharge
5.285.1	The Permittee shall vent emissions from EQUI 348 to control equipment meeting the requirements of TREA 173 whenever EQUI 348 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.285.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.285.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 350	L3 Cooler Vent Stack
5.286.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.286.2	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
5.286.3	Visible Emissions: The Permittee shall check the Line 3 Pellet Cooler Stack (STRU 121) for any visible emissions once each day of operation during daylight hours, except during inclement weather. [Minn. R. 7007.0800, subp. 2(A)]
5.286.4	Recordkeeping of Visible Emissions: The Permittee shall record the time and date of each visible emission inspection, whether or not any visible emissions were observed and whether or not inclement weather was present. [Minn. R. 7007.0800, subps. 4-5]
5.286.5	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - visible emissions are observed; - the Pellet Cooler or any of its components are found during the inspection to need repair Corrective actions shall eliminate visible emissions, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M plan. The Permittee shall keep a record of the type and date of any corrective action taken. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subps. 4-5]
EQUI 351	L3 Feeder 041/046 Belts
5.287.1	The Permittee shall vent emissions from EQUI 351 to control equipment meeting the requirements of TREA 175 whenever EQUI 351 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.287.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.287.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 352	L3 041/046 Conveyor Belt Vent
5.288.1	The Permittee shall vent emissions from EQUI 352 to control equipment meeting the requirements of

Requirement number	Requirement and citation
	TREA 175 whenever EQUI 352 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.288.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.288.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 353	S1 Conveyor Transfer 042-043
5.289.1	The Permittee shall vent emissions from EQUI 353 to control equipment meeting the requirements of TREA 176 whenever EQUI 353 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.289.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.289.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 354	L3 Conveyor Transfer 041-042
5.290.1	The Permittee shall vent emissions from EQUI 354 to control equipment meeting the requirements of TREA 177 whenever EQUI 354 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.290.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.290.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 355	S1 Bentonite Storage Bin
5.291.1	The Permittee shall vent emissions from EQUI 355 to control equipment meeting the requirements of TREA 97 whenever EQUI 355 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.291.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.291.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 356	S1 Bentonite Storage Bin
5.292.1	The Permittee shall vent emissions from EQUI 356 to control equipment meeting the requirements of TREA 97 whenever EQUI 356 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.292.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.292.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 357	L2,3 Bentonite Day Bin
5.293.1	The Permittee shall vent emissions from EQUI 357 to control equipment meeting the requirements of TREA 98 whenever EQUI 357 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.293.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.293.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]

Requirement number	Requirement and citation
EQUI 358	L2,3 Bentonite Day Bin
5.294.1	The Permittee shall vent emissions from EQUI 358 to control equipment meeting the requirements of TREA 98 whenever EQUI 358 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.294.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.294.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 359	S1,2 Bentonite Unloading
5.295.1	The Permittee shall vent emissions from EQUI 359 to control equipment meeting the requirements of TREA 211 whenever EQUI 359 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.295.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.295.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 360	S2 Bentonite Storage Bin
5.296.1	The Permittee shall vent emissions from EQUI 360 to control equipment meeting the requirements of TREA 100 whenever EQUI 360 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.296.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.296.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 361	S2 Bentonite Storage Bin
5.297.1	The Permittee shall vent emissions from EQUI 361 to control equipment meeting the requirements of TREA 100 whenever EQUI 361 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.297.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.297.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 362	L4 Bentonite Day Bins
5.298.1	The Permittee shall vent emissions from EQUI 362 to control equipment meeting the requirements of TREA 101 whenever EQUI 362 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.298.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.298.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 363	L4 Bentonite Day Bins
5.299.1	The Permittee shall vent emissions from EQUI 363 to control equipment meeting the requirements of TREA 101 whenever EQUI 363 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.299.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]

Requirement number	Requirement and citation
5.299.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 364	L4 Bentonite Day Bins
5.300.1	The Permittee shall vent emissions from EQUI 364 to control equipment meeting the requirements of TREA 101 whenever EQUI 364 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.300.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.300.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 365	L4 Bentonite Blending
5.301.1	The Permittee shall vent emissions from EQUI 365 to control equipment meeting the requirements of TREA 102 whenever EQUI 365 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.301.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.301.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 366	L4 Bentonite Blending
5.302.1	The Permittee shall vent emissions from EQUI 366 to control equipment meeting the requirements of TREA 102 whenever EQUI 366 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.302.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.302.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 367	L4 Bentonite Blending
5.303.1	The Permittee shall vent emissions from EQUI 367 to control equipment meeting the requirements of TREA 102 whenever EQUI 367 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.303.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.303.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 368	L4 Grate Discharge
5.304.1	The Permittee shall vent emissions from EQUI 368 to control equipment meeting the requirements of TREA 104 whenever EQUI 368 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.304.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.304.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 370	L4 Pellet Cooler Vent Stack
5.305.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]

Requirement number	Requirement and citation
5.305.2	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
5.305.3	Visible Emissions: The Permittee shall check the Line 4 Pellet Cooler Stack (STRU 129) for any visible emissions once each day of operation during daylight hours, except during inclement weather. [Minn. R. 7007.0800, subp. 2(A)]
5.305.4	Recordkeeping of Visible Emissions: The Permittee shall record the time and date of each visible emission inspection, whether or not any visible emissions were observed and whether or not inclement weather was present. [Minn. R. 7007.0800, subps. 4-5]
5.305.5	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - visible emissions are observed; - the Pellet Cooler or any of its components are found during the inspection to need repair Corrective actions shall eliminate visible emissions, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M plan. The Permittee shall keep a record of the type and date of any corrective action taken. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subps. 4-5]
EQUI 371	L4 Cooler Discharge / Fines Conveyor
5.306.1	The Permittee shall vent emissions from EQUI 371 to control equipment meeting the requirements of TREA 178 whenever EQUI 371 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.306.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.306.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 372	L4 Conveyor Transfer 041/046 to 042 Belts
5.307.1	The Permittee shall vent emissions from EQUI 372 to control equipment meeting the requirements of TREA 108 whenever EQUI 372 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.307.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.307.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 373	Electric Shop Curing Oven (new)
5.308.1	Opacity <= 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity. [Minn. R. 7011.0610, subp. 1(A)(2)]
5.308.2	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0610, subp. 1(A)(1)]
5.308.3	Fuel type: Natural gas only, by design. [Minn. R. 7005.0100, subp. 35a]
5.308.4	The Permittee shall keep records of fuel purchases showing fuel types. [Minn. R. 7007.0800, subp. 5]
EQUI 374	Step II Coarse Crusher Pan Feeders
5.309.1	The Permittee shall vent emissions from EQUI 374 to control equipment meeting the requirements of TREA 232 whenever EQUI 374 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]

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5.309.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.309.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 375	Step III Coarse Crusher Pan Feeders
5.310.1	The Permittee shall vent emissions from EQUI 375 to control equipment meeting the requirements of TREA 120 whenever EQUI 375 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.310.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.310.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 376	Zinc Melt Furnace
5.311.1	Opacity <= 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity. [Minn. R. 7011.0610, subp. 1(A)(2)]
5.311.2	Sulfur Dioxide <= 2.0 pounds per million Btu heat input when burning liquid fossil fuels. The potential to emit from the unit is 0.51 lb/MMBtu due to equipment design and allowable fuels. [Minn. R. 7011.0610, subp. 2]
5.311.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0610, subp. 1(A)(1)]
5.311.4	Fuel type: Natural gas only, by design. [Minn. R. 7005.0100, subp. 35a]
5.311.5	The Permittee shall keep records of fuel purchases showing fuel types. [Minn. R. 7007.0800, subp. 5]
EQUI 377	Conveyor Transfer 005-006
5.312.1	The Permittee shall vent emissions from EQUI 377 to control equipment meeting the requirements of TREA122 whenever EQUI 377 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.312.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.312.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 378	Conveyor Transfer 004-005
5.313.1	The Permittee shall vent emissions from EQUI 378 to control equipment meeting the requirements of TREA 210 whenever EQUI 378 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.313.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.313.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 379	Conveyor Transfer 004-005
5.314.1	The Permittee shall vent emissions from EQUI 379 to control equipment meeting the requirements of TREA 210 whenever EQUI 379 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.314.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.314.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further

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	reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 380	Conveyor Transfer 004-005
5.315.1	The Permittee shall vent emissions from EQUI 380 to control equipment meeting the requirements of TREA 210 whenever EQUI 380 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.315.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.315.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 381	Conveyor Transfer 008 to 009
5.316.1	The Permittee shall vent emissions from EQUI 381 to control equipment meeting the requirements of TREA 221 whenever EQUI 381 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.316.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.316.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 382	Secondary Crusher L3
5.317.1	The Permittee shall vent emissions from EQUI 382 to control equipment meeting the requirements of TREA 227 whenever EQUI 382 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.317.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.317.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 383	Conveyor Transfer 005 to 006
5.318.1	The Permittee shall vent emissions from EQUI 383 to control equipment meeting the requirements of TREA 213 whenever EQUI 383 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.318.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.318.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 384	Conveyor Transfer 005 to 006
5.319.1	The Permittee shall vent emissions from EQUI 384 to control equipment meeting the requirements of TREA 213 whenever EQUI 384 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.319.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.319.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 385	Conveyor Transfer 003 to 004
5.320.1	The Permittee shall vent emissions from EQUI 385 to control equipment meeting the requirements of TREA 222 whenever EQUI 385 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]

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5.320.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.320.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 386	Tertiary Storage Bin 1-4
5.321.1	The Permittee shall vent emissions from EQUI 386 in parallel to control equipment meeting the requirements of TREA 194 and TREA 195 whenever EQUI 386 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.321.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.321.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 387	Tertiary Storage Bin 1-4
5.322.1	The Permittee shall vent emissions from EQUI 387 in parallel to control equipment meeting the requirements of TREA 198 and TREA 199 whenever EQUI 387 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.322.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.322.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 388	Tertiary Crusher L2
5.323.1	The Permittee shall vent emissions from EQUI 388 to control equipment meeting the requirements of TREA 195 whenever EQUI 388 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.323.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.323.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 389	Tertiary Crusher L4
5.324.1	The Permittee shall vent emissions from EQUI 389 to control equipment meeting the requirements of TREA 197 whenever EQUI 389 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.324.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.324.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 390	Secondary Crusher L7
5.325.1	The Permittee shall vent emissions from EQUI 390 to control equipment meeting the requirements of TREA 49 whenever EQUI 390 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.325.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.325.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 392	Conveyor Transfer 001 to 070

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5.326.1	The Permittee shall vent emissions from EQUI 392 to control equipment meeting the requirements of TREA 54 whenever EQUI 392 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.326.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.326.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 393	Conveyor Transfer 009-020
5.327.1	The Permittee shall vent emissions from EQUI 393 to control equipment meeting the requirements of TREA 229 whenever EQUI 393 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.327.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.327.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 394	Conveyor Transfer 009-020
5.328.1	The Permittee shall vent emissions from EQUI 394 to control equipment meeting the requirements of TREA 229 whenever EQUI 394 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.328.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.328.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 395	Conveyor Transfer 009-020
5.329.1	The Permittee shall vent emissions from EQUI 395 to control equipment meeting the requirements of TREA 86 whenever EQUI 395 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.329.2	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.329.3	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 671	Diesel Generator
5.330.1	Opacity <= 20 percent opacity once operating temperatures have been attained. [Minn. R. 7011.2300, subp. 1]
5.330.2	Sulfur Dioxide <= 0.0015 pounds per million Btu heat input. The potential to emit from the unit is 0.0015 lb/MMBtu due to equipment design and allowable fuels. [Minn. R. 7011.2300, subp. 2(B)]
5.330.3	Fuel type: No. 2 fuel oil/diesel fuel meeting the requirements of 40 CFR Section 1090.305 only. [Minn. R. 7005.0100, subp. 35a]
5.330.4	Hours of Operation: The Permittee shall maintain documentation on site that the unit is an emergency generator by design that qualifies under the U.S. EPA memorandum entitled "Calculating Potential to Emit (PTE) for Emergency Generators" dated September 6, 1995, that allows calculation of potential emissions based on 500 operating hours per year. [Minn. R. 7007.0800, subps. 4-5]
5.330.5	The Permittee shall keep records of fuel type and usage on a monthly basis. [Minn. R. 7007.0800, subp. 5]
5.330.6	Fuel Supplier Certification: The Permittee shall obtain and maintain a fuel supplier certification for each shipment of diesel fuel oil, certifying that the sulfur content does not exceed 0.0015 percent by

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	weight. [Minn. R. 7007.0800, subps. 4-5]
5.330.7	At the time of permit issuance, EQUI 671 is considered a new affected source under 40 CFR pt. 63, subp. ZZZZ as defined at 40 CFR 63.6590(a)(2)(i). However, this unit meets the criteria in 40 CFR 63.6590(b)(1)(i) so no requirements of 40 CFR pt. 63, subps. A and ZZZZ, except the initial notification requirements of 40 CFR 63.6645(f), apply. [40 CFR 63.6590(a)(2)(i) and (b)(1)(i), Minn. R. 7011.8150]
5.330.8	The Permittee must limit emissions of NMHC+NOx <= 6.4 grams per kilowatt-hour as described in 40 CFR pt. 1039, Appendix I. [40 CFR 60.4202(a)(2), 40 CFR 60.4205(b), Minn. R. 7011.2305]
5.330.9	The Permittee must limit emissions of Particulate Matter <= 0.20 grams per kilowatt-hour as described in 40 CFR pt. 1039, Appendix I. [40 CFR 60.4202(a)(2), 40 CFR 60.4205(b), Minn. R. 7011.2305]
5.330.10	The Permittee must limit emissions of Carbon Monoxide <= 3.5 grams per kilowatt-hour as described in 40 CFR pt. 1039, Appendix I. [40 CFR 60.4202(a)(2), 40 CFR 60.4205(b), Minn. R. 7011.2305]
5.330.11	The Permittee must limit emissions of Opacity <= 20 percent opacity during the acceleration mode. [40 CFR 60.4202(a)(2), 40 CFR 60.4205(b), Minn. R. 7011.2305]
5.330.12	The Permittee must limit emissions of Opacity <= 15 percent opacity during the lugging mode. [40 CFR 60.4202(a)(2), 40 CFR 60.4205(b), Minn. R. 7011.2305]
5.330.13	The Permittee must limit emissions of Opacity <= 50 percent opacity during the peaks in either the acceleration or lugging modes. [40 CFR 60.4202(a)(2), 40 CFR 60.4205(b), Minn. R. 7011.2305]
5.330.14	The Permittee must limit Sulfur Content of Fuel <= 15.0 parts per million and either a minimum cetane index of 40 or a maximum aromatic content of 35 percent by volume, as required by 40 CFR 1090.305. [40 CFR 60.4207(b), Minn. R. 7011.2305]
5.330.15	The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. IIII as follows: 40 CFR 60.4200(a)(2)(i); 40 CFR 60.4202(a)(2); 40 CFR 60.4205(b); 40 CFR 60.4206; 40 CFR 60.4207(b); 40 CFR 60.4208(a); 40 CFR 60.4209(a); 40 CFR 60.4211(a); 40 CFR 60.4211(c); 40 CFR 60.4211(f)(1); 40 CFR 60.4211(f)(2)(i); 40 CFR 60.4211(f)(3); 40 CFR 60.4214(b); 40 CFR 60.4214(d); 40 CFR 60.4214(g)-(j); 40 CFR 60.4218; 40 CFR 60.4219; and 40 CFR pt. 60, subp. IIII, Table 8. A copy of 40 CFR pt. 60, subp. IIII is included in Appendix H. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 60, subp. IIII, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.2305]

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5.330.16	The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. A as follows: 40 CFR 60.1(a)-(c); 40 CFR 60.2; 40 CFR 60.3; 40 CFR 60.4; 40 CFR 60.5(a)-(b); 40 CFR 60.6(a)-(b); 40 CFR 60.7(a)(1); 40 CFR 60.7(a)(3)-(7); 40 CFR 60.7(b)-(d); 40 CFR 60.9; 40 CFR 60.12; 40 CFR 60.14(a)-(l); 40 CFR 60.15(a)-(g); 40 CFR 60.17; 40 CFR 60.19(a)-(e); and 40 CFR 60.19(f)(1)-(4). A copy of 40 CFR pt. 60, subp. A is included in Appendix H. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than 3 years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 60, subp. A, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.0050, subp. 1(A), Minn. R. 7017.1010 & 7017.2015, subp. 2, Minn. R. 7019.0100]
EQUI 672	New Emergency Generator
5.331.1	Opacity <= 20 percent opacity once operating temperatures have been attained. [Minn. R. 7011.2300, subp. 1]
5.331.2	Sulfur Dioxide <= 0.0015 pounds per million Btu heat input. The potential to emit from the unit is 0.0015 lb/MMBtu due to equipment design and allowable fuels. [Minn. R. 7011.2300, subp. 2(B)]
5.331.3	Fuel type: Diesel only, by design. [Minn. R. 7005.0100, subp. 35a]
5.331.4	Hours of Operation: The Permittee shall maintain documentation on site that the unit is an emergency generator by design that qualifies under the U.S. EPA memorandum entitled "Calculating Potential to Emit (PTE) for Emergency Generators" dated September 6, 1995, that allows calculation of potential emissions based on 500 operating hours per year. [Minn. R. 7007.0800, subps. 4-5]
5.331.5	The Permittee shall keep records of fuel type and usage on a monthly basis. [Minn. R. 7007.0800, subp. 5]
5.331.6	Fuel Supplier Certification: The Permittee shall obtain and maintain a fuel supplier certification for each shipment of diesel fuel oil, certifying that the sulfur content does not exceed 0.0015 percent by weight. [Minn. R. 7007.0800, subps. 4-5]
5.331.7	EQUI 672 is a new affected source as defined under 40 CFR pt. 63, subp. ZZZZ, and the facility is a major source as defined at 40 CFR 63.2, and EQUI 672 is an Emergency RICE with a site rating of less than 500 brake HP. The Permittee shall meet the requirements of 40 CFR pt. 63, subp. ZZZZ by meeting the requirements of 40 CFR pt. 60, subp. IIII. No further requirements of 40 CFR pt. 63, subp. ZZZZ apply to EQUI 672. [40 CFR 63.6590(c), Minn. R. 7011.8150]
5.331.8	The Permittee must limit Sulfur Content of Fuel <= 15.0 parts per million and either a minimum cetane index of 40 or a maximum aromatic content of 35 percent by volume, as required by 40 CFR

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	1090.305. [40 CFR 60.4207(b), Minn. R. 7011.2305]
5.331.9	The Permittee must limit emissions of NMHC+NOx <= 7.5 grams per kilowatt-hour as described in 40 CFR pt. 1039, Appendix I. [40 CFR 60.4202(a)(2), 40 CFR 60.4205(b), Minn. R. 7011.2305]
5.331.10	The Permittee must limit emissions of Particulate Matter <= 0.40 grams per kilowatt-hour as described in 40 CFR pt. 1039, Appendix I. [40 CFR 60.4202(a)(2), 40 CFR 60.4205(b), Minn. R. 7011.2305]
5.331.11	The Permittee must limit emissions of Carbon Monoxide <= 5.0 grams per kilowatt-hour as described in 40 CFR pt. 1039, Appendix I. [40 CFR 60.4202(a)(2), 40 CFR 60.4205(b), Minn. R. 7011.2305]
5.331.12	The Permittee must limit emissions of Opacity <= 20 percent opacity during the acceleration mode. [40 CFR 60.4202(a)(2), 40 CFR 60.4205(b), Minn. R. 7011.2305]
5.331.13	The Permittee must limit emissions of Opacity <= 15 percent opacity during the lugging mode. [40 CFR 60.4202(a)(2), 40 CFR 60.4205(b), Minn. R. 7011.2305]
5.331.14	The Permittee must limit emissions of Opacity <= 50 percent opacity during the peaks in either the acceleration or lugging modes. [40 CFR 60.4202(a)(2), 40 CFR 60.4205(b), Minn. R. 7011.2305]
5.331.15	The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. IIII as follows: 40 CFR 60.4200(a)(2)(i); 40 CFR 60.4202(a)(2); 40 CFR 60.4205(b); 40 CFR 60.4206; 40 CFR 60.4207(b); 40 CFR 60.4208(a); 40 CFR 60.4209(a); 40 CFR 60.4211(a); 40 CFR 60.4211(c); 40 CFR 60.4211(f)(1); 40 CFR 60.4211(f)(2)(i); 40 CFR 60.4211(f)(3); 40 CFR 60.4214(b); 40 CFR 60.4214(d); 40 CFR 60.4214(g)-(j); 40 CFR 60.4218; 40 CFR 60.4219; and 40 CFR pt. 60, subp. IIII, Table 8. A copy of 40 CFR pt. 60, subp. IIII is included in Appendix H. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 60, subp. IIII, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.2305]
5.331.16	The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. A as follows: 40 CFR 60.1; 40 CFR 60.2; 40 CFR 60.3; 40 CFR 60.4; 40 CFR 60.5;

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	40 CFR 60.6; 40 CFR 60.7; 40 CFR 60.9; 40 CFR 60.10; 40 CFR 60.12; 40 CFR 60.14; 40 CFR 60.15; 40 CFR 60.17; and 40 CFR 60.19. A copy of 40 CFR pt. 60, subp. A is included in Appendix C. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 60, subp. A, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.0050, subp. 1(A), Minn. R. 7017.1010 & 7017.2015, subp. 2, Minn. R. 7019.0100]
EQUI 673	Tertiary Crusher Line 28 New
5.332.1	The Permittee shall vent emissions from EQUI 673 to control equipment meeting the requirements of TREA 76 whenever EQUI 673 operates. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) & Minn. R. 7007.3000]
5.332.2	The Permittee must limit Filterable Particulate Matter <= 0.05 grams per dry standard cubic meter (0.022 gr/dscf). [40 CFR 60.382(a)(1), Minn. R. 7011.2700]
5.332.3	The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. LL, as follows: 40 CFR 60.380; 40 CFR 60.381; 40 CFR 60.382(a)(1); 40 CFR 60.383; 40 CFR 60.384; 40 CFR 60.385(a); 40 CFR 60.385(b)-(e); and 40 CFR 60.386(a), (b)(1), & (c). A copy of 40 CFR pt. 60, subp. LL is included in Appendix E. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 60, subp. LL, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.2700]
5.332.4	The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. A as follows: 40 CFR 60.1(a), (b), & (c); 40 CFR 60.2; 40 CFR 60.3; 40 CFR 60.4; 40 CFR 60.5; 40 CFR 60.6(a) & (b);

Requirement number	Requirement and citation
	40 CFR 60.7(a)(1), (3), (4), & (6); 40 CFR 60.7(b); 40 CFR 60.8; 40 CFR 60.9; 40 CFR 60.11(a)-(d), (f), & (g); 40 CFR 60.11(e)(1)-(3) & (6)-(8); 40 CFR 60.12; 40 CFR 60.14(a)-(c) & (e)-(g); 40 CFR 60.15; 40 CFR 60.17; and 40 CFR 60.19. A copy of 40 CFR pt. 60, subp. A is included in Appendix C. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 60, subp. A, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.0050, subp. 1(A), Minn. R. 7017.1010 & 7017.2015, subp. 2, Minn. R. 7019.0100]
EQUI 674	Replacement Tertiary Crusher L23 (Metso)
5.333.1	The Permittee must limit Filterable Particulate Matter $\leq$ 0.05 grams per dry standard cubic meter (0.022 gr/dscf). [40 CFR 60.382(a)(1), Minn. R. 7011.2700]
5.333.2	The Permittee shall vent emissions from EQUI 674 to control equipment meeting the requirements of TREA 71 whenever EQUI 674 operates. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) & Minn. R. 7007.3000]
5.333.3	The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. LL, as follows: 40 CFR 60.380; 40 CFR 60.381; 40 CFR 60.382(a)(1); 40 CFR 60.383; 40 CFR 60.384; 40 CFR 60.385(a); 40 CFR 60.385(b)-(e); and 40 CFR 60.386(a), (b)(1), & (c). A copy of 40 CFR pt. 60, subp. LL is included in Appendix E. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 60, subp. LL, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.2700]
5.333.4	The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. A as follows: 40 CFR 60.1(a), (b), & (c); 40 CFR 60.2; 40 CFR 60.3;

Requirement number	Requirement and citation
	40 CFR 60.4; 40 CFR 60.5; 40 CFR 60.6(a) & (b); 40 CFR 60.7(a)(1), (3), (4), & (6); 40 CFR 60.7(b); 40 CFR 60.8; 40 CFR 60.9; 40 CFR 60.11(a)-(d), (f), & (g); 40 CFR 60.11(e)(1)-(3) & (6)-(8); 40 CFR 60.12; 40 CFR 60.14(a)-(c) & (e)-(g); 40 CFR 60.15; 40 CFR 60.17; and 40 CFR 60.19. A copy of 40 CFR pt. 60, subp. A is included in Appendix C. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 60, subp. A, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.0050, subp. 1(A), Minn. R. 7017.1010 & 7017.2015, subp. 2, Minn. R. 7019.0100]
EQUI 675	Replacement Tertiary Crusher L27 (Metso)
5.334.1	The Permittee shall vent emissions from EQUI 675 to control equipment meeting the requirements of TREA 73 whenever EQUI 675 operates. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) & Minn. R. 7007.3000]
5.334.2	The Permittee must limit Filterable Particulate Matter <= 0.05 grams per dry standard cubic meter (0.022 gr/dscf). [40 CFR 60.382(a)(1), Minn. R. 7011.2700]
5.334.3	The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. LL, as follows: 40 CFR 60.380; 40 CFR 60.381; 40 CFR 60.382(a)(1); 40 CFR 60.383; 40 CFR 60.384; 40 CFR 60.385(a); 40 CFR 60.385(b)-(e); and 40 CFR 60.386(a), (b)(1), & (c). A copy of 40 CFR pt. 60, subp. LL is included in Appendix E. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 60, subp. LL, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.2700]
5.334.4	The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. A as follows: 40 CFR 60.1(a), (b), & (c);

Requirement number	Requirement and citation
	40 CFR 60.2; 40 CFR 60.3; 40 CFR 60.4; 40 CFR 60.5; 40 CFR 60.6(a) & (b); 40 CFR 60.7(a)(1), (3), (4), & (6); 40 CFR 60.7(b); 40 CFR 60.8; 40 CFR 60.9; 40 CFR 60.11(a)-(d), (f), & (g); 40 CFR 60.11(e)(1)-(3) & (6)-(8); 40 CFR 60.12; 40 CFR 60.14(a)-(c) & (e)-(g); 40 CFR 60.15; 40 CFR 60.17; and 40 CFR 60.19. A copy of 40 CFR pt. 60, subp. A is included in Appendix C. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 60, subp. A, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.0050, subp. 1(A), Minn. R. 7017.1010 & 7017.2015, subp. 2, Minn. R. 7019.0100]
EQUI 676	Clean-up Materials
5.335.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.335.2	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 678	Conveyor Transfer HPGR
5.336.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.336.2	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 679	Conveyor Transfer HPGR
5.337.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.337.2	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 680	Conveyor Transfer HPGR
5.338.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.338.2	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 681	Conveyor Transfer HPGR
5.339.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]

Requirement number	Requirement and citation
5.339.2	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 682	HPGR Grinder
5.340.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.340.2	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 683	Conveyor Transfer HPGR
5.341.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.341.2	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 684	Coal Unloading Hopper
5.342.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.342.2	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
5.342.3	Visible Emissions: The Permittee shall check the Coal Unloading Silo stack (STRU 171) for any visible emissions once each day of operation during daylight hours, except during inclement weather. [Minn. R. 7007.0800, subp. 2(A)]
5.342.4	Recordkeeping of Visible Emissions: The Permittee shall record the time and date of each visible emission inspection, whether or not any visible emissions were observed and whether or not inclement weather was present. [Minn. R. 7007.0800, subps. 4-5]
5.342.5	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - visible emissions are observed; - the Pellet Cooler or any of its components are found during the inspection to need repair Corrective actions shall eliminate visible emissions, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M plan. The Permittee shall keep a record of the type and date of any corrective action taken. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subps. 4-5]
EQUI 685	Coal Day Bin/Conveyor Transfer
5.343.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.343.2	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
5.343.3	Visible Emissions: The Permittee shall check the Coal Day Bin/Conveyor Transfer stack (STRU 84) for any visible emissions once each day of operation during daylight hours, except during inclement weather. [Minn. R. 7007.0800, subp. 2(A)]
5.343.4	Recordkeeping of Visible Emissions: The Permittee shall record the time and date of each visible emission inspection, whether or not any visible emissions were observed and whether or not inclement weather was present. [Minn. R. 7007.0800, subps. 4-5]
5.343.5	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur:

Requirement number	Requirement and citation
	-visible emissions are observed; -the Pellet Cooler or any of its components are found during the inspection to need repair Corrective actions shall eliminate visible emissions, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M plan. The Permittee shall keep a record of the type and date of any corrective action taken. [Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subps. 4-5]
EQUI 688	Utility Plant Diesel Generator S1
5.344.1	Opacity <= 20 percent opacity once operating temperatures have been attained. [Minn. R. 7011.2300, subp. 1]
5.344.2	Sulfur Dioxide <= 0.0015 pounds per million Btu heat input. The potential to emit from the unit is 0.0015 lb/MMBtu due to equipment design and allowable fuels. [Minn. R. 7011.2300, subp. 2(B)]
5.344.3	Fuel type: Diesel only, by design. [Minn. R. 7005.0100, subp. 35a]
5.344.4	Hours of Operation: The Permittee shall maintain documentation on site that the unit is an emergency generator by design that qualifies under the U.S. EPA memorandum entitled "Calculating Potential to Emit (PTE) for Emergency Generators" dated September 6, 1995, that allows calculation of potential emissions based on 500 operating hours per year. [Minn. R. 7007.0800, subps. 4-5]
5.344.5	The Permittee shall keep records of fuel type and usage on a monthly basis. [Minn. R. 7007.0800, subp. 5]
5.344.6	Fuel Supplier Certification: The Permittee shall obtain and maintain a fuel supplier certification for each shipment of diesel fuel oil, certifying that the sulfur content does not exceed 0.0015 percent by weight. [Minn. R. 7007.0800, subps. 4-5]
5.344.7	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. ZZZZ as follows: 40 CFR 63.6585(a); 40 CFR 63.6585(b); 40 CFR 63.6590(a); 40 CFR 63.6590(a)(1)(ii); 40 CFR 63.6595(a)(1); 40 CFR 63.6595(c); 40 CFR 63.6602; 40 CFR 63.6605(a); 40 CFR 63.6605(b); 40 CFR 63.6612; 40 CFR 63.6625(e); 40 CFR 63.6625(e)(2); 40 CFR 63.6625(f); 40 CFR 63.6625(h); 40 CFR 63.6625(i); 40 CFR 63.6640(a); 40 CFR 63.6640(b); 40 CFR 63.6640(e); 40 CFR 63.6640(f); 40 CFR 63.6640(f)(1); 40 CFR 63.6640(f)(2)(i); 40 CFR 63.6640(f)(3); 40 CFR 63.6645; 40 CFR 63.6645(a)(5); 40 CFR 63.6650(f);

Requirement number	Requirement and citation
	40 CFR 63.6650(i); 40 CFR 63.6655(d); 40 CFR 63.6655(e)(2); 40 CFR 63.6655(f); 40 CFR 63.6655(f)(1); 40 CFR 63.6660(a)-(c); 40 CFR 63.6665; 40 CFR 63.6675; 40 CFR pt. 63, subp. ZZZZ, Table 2c, item 1; 40 CFR pt. 63, subp. ZZZZ, Table 6, item 9; and 40 CFR pt. 63, subp. ZZZZ, Table 8. A copy of 40 CFR pt. 63, subp. ZZZZ is included in Appendix I. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. ZZZZ, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8150]
5.344.8	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. A as follows: 40 CFR 63.1; 40 CFR 63.2; 40 CFR 63.3; 40 CFR 63.4; 40 CFR 63.6(a); 40 CFR 63.6(c)(1)-(2), (5); 40 CFR 63.6(f)(2)-(3); 40 CFR 63.6(g); 40 CFR 63.6(i)-(j); 40 CFR 63.9(a)-(e); 40 CFR 63.9(h); 40 CFR 63.9(i)-(k); 40 CFR 63.10(a); 40 CFR 63.10(b)(1); 40 CFR 63.10(b)(2)(vi)-(xiv); 40 CFR 63.10(b)(3); 40 CFR 63.10(d)(1); 40 CFR 63.10(f); 40 CFR 63.12; 40 CFR 63.13; 40 CFR 63.14; and 40 CFR 63.15. A copy of 40 CFR pt. 63, subp. A is included in Appendix H. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. A, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.0050, subp. 1(B), Minn. R. 7017.1010 & 7017.2015, subp. 3,

Requirement number	Requirement and citation
	Minn. R. 7019.0100]
EQUI 689	Utility Plant Diesel Generator S3
5.345.1	Opacity <= 20 percent opacity once operating temperatures have been attained. [Minn. R. 7011.2300, subp. 1]
5.345.2	Sulfur Dioxide <= 0.0015 pounds per million Btu heat input. The potential to emit from the unit is 0.0015 lb/MMBtu due to equipment design and allowable fuels. [Minn. R. 7011.2300, subp. 2(B)]
5.345.3	Fuel type: Diesel only, by design. [Minn. R. 7005.0100, subp. 35a]
5.345.4	Hours of Operation: The Permittee shall maintain documentation on site that the unit is an emergency generator by design that qualifies under the U.S. EPA memorandum entitled "Calculating Potential to Emit (PTE) for Emergency Generators" dated September 6, 1995, that allows calculation of potential emissions based on 500 operating hours per year. [Minn. R. 7007.0800, subps. 4-5]
5.345.5	The Permittee shall keep records of fuel type and usage on a monthly basis. [Minn. R. 7007.0800, subp. 5]
5.345.6	Fuel Supplier Certification: The Permittee shall obtain and maintain a fuel supplier certification for each shipment of diesel fuel oil, certifying that the sulfur content does not exceed 0.0015 percent by weight. [Minn. R. 7007.0800, subps. 4-5]
5.345.7	At the time of permit issuance, EQUI 689 is considered an existing affected source under 40 CFR pt. 63, subp. ZZZZ as defined at 40 CFR 63.6590(a)(1)(i). However, this unit meets the criteria in 40 CFR 63.6590(b)(3), so no limits, recordkeeping, or notifications from 40 CFR pt. 63, subp. ZZZZ apply to this unit. [40 CFR 63.6590(a)(1)(i) and (b)(3), Minn. R. 7011.8150]
EQUI 690	Utility Plant Diesel Pump
5.346.1	Opacity <= 20 percent opacity once operating temperatures have been attained. [Minn. R. 7011.2300, subp. 1]
5.346.2	Sulfur Dioxide <= 0.0015 pounds per million Btu heat input. The potential to emit from the unit is 0.0015 lb/MMBtu due to equipment design and allowable fuels. [Minn. R. 7011.2300, subp. 2(B)]
5.346.3	Fuel type: Diesel only, by design. [Minn. R. 7005.0100, subp. 35a]
5.346.4	Hours of Operation: The Permittee shall maintain documentation on site that the unit is an emergency generator by design that qualifies under the U.S. EPA memorandum entitled "Calculating Potential to Emit (PTE) for Emergency Generators" dated September 6, 1995, that allows calculation of potential emissions based on 500 operating hours per year. [Minn. R. 7007.0800, subps. 4-5]
5.346.5	The Permittee shall keep records of fuel type and usage on a monthly basis. [Minn. R. 7007.0800, subp. 5]
5.346.6	Fuel Supplier Certification: The Permittee shall obtain and maintain a fuel supplier certification for each shipment of diesel fuel oil, certifying that the sulfur content does not exceed 0.0015 percent by weight. [Minn. R. 7007.0800, subps. 4-5]
5.346.7	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. ZZZZ as follows: 40 CFR 63.6585(a); 40 CFR 63.6585(b); 40 CFR 63.6590(a); 40 CFR 63.6590(a)(1)(ii); 40 CFR 63.6595(a)(1); 40 CFR 63.6595(c); 40 CFR 63.6602; 40 CFR 63.6605(a); 40 CFR 63.6605(b); 40 CFR 63.6612;

Requirement number	Requirement and citation
	40 CFR 63.6625(e); 40 CFR 63.6625(e)(2); 40 CFR 63.6625(f); 40 CFR 63.6625(h); 40 CFR 63.6625(i); 40 CFR 63.6640(a); 40 CFR 63.6640(b); 40 CFR 63.6640(e); 40 CFR 63.6640(f); 40 CFR 63.6640(f)(1); 40 CFR 63.6640(f)(2)(i); 40 CFR 63.6640(f)(3); 40 CFR 63.6645; 40 CFR 63.6645(a)(5); 40 CFR 63.6650(f); 40 CFR 63.6650(i); 40 CFR 63.6655(d); 40 CFR 63.6655(e)(2); 40 CFR 63.6655(f); 40 CFR 63.6655(f)(1); 40 CFR 63.6660(a)-(c); 40 CFR 63.6665; 40 CFR 63.6675; 40 CFR pt. 63, subp. ZZZZ, Table 2c, item 1; 40 CFR pt. 63, subp. ZZZZ, Table 6, item 9; and 40 CFR pt. 63, subp. ZZZZ, Table 8. A copy of 40 CFR pt. 63, subp. ZZZZ is included in Appendix I. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. ZZZZ, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8150]
5.346.8	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. A as follows: 40 CFR 63.1; 40 CFR 63.2; 40 CFR 63.3; 40 CFR 63.4; 40 CFR 63.6(a); 40 CFR 63.6(c)(1)-(2), (5); 40 CFR 63.6(f)(2)-(3); 40 CFR 63.6(g); 40 CFR 63.6(i)-(j); 40 CFR 63.9(a)-(e); 40 CFR 63.9(h); 40 CFR 63.9(i)-(k); 40 CFR 63.10(a); 40 CFR 63.10(b)(1); 40 CFR 63.10(b)(2)(vi)-(xiv);

Requirement number	Requirement and citation
	40 CFR 63.10(b)(3); 40 CFR 63.10(d)(1); 40 CFR 63.10(f); 40 CFR 63.12; 40 CFR 63.13; 40 CFR 63.14; and 40 CFR 63.15. A copy of 40 CFR pt. 63, subp. A is included in Appendix H. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. A, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.0050, subp. 1(B), Minn. R. 7017.1010 & 7017.2015, subp. 3, Minn. R. 7019.0100]
EQUI 691	Diesel Generator
5.347.1	Opacity <= 20 percent opacity once operating temperatures have been attained. [Minn. R. 7011.2300, subp. 1]
5.347.2	Sulfur Dioxide <= 0.0015 pounds per million Btu heat input. The potential to emit from the unit is 0.0015 lb/MMBtu due to equipment design and allowable fuels. [Minn. R. 7011.2300, subp. 2(B)]
5.347.3	Fuel type: Diesel only, by design. [Minn. R. 7005.0100, subp. 35a]
5.347.4	Hours of Operation: The Permittee shall maintain documentation on site that the unit is an emergency generator by design that qualifies under the U.S. EPA memorandum entitled "Calculating Potential to Emit (PTE) for Emergency Generators" dated September 6, 1995, that allows calculation of potential emissions based on 500 operating hours per year. [Minn. R. 7007.0800, subps. 4-5]
5.347.5	The Permittee shall keep records of fuel type and usage on a monthly basis. [Minn. R. 7007.0800, subp. 5]
5.347.6	Fuel Supplier Certification: The Permittee shall obtain and maintain a fuel supplier certification for each shipment of diesel fuel oil, certifying that the sulfur content does not exceed 0.0015 percent by weight. [Minn. R. 7007.0800, subps. 4-5]
5.347.7	At the time of permit issuance, EQUI 691 is considered an existing affected source under 40 CFR pt. 63, subp. ZZZZ as defined at 40 CFR 63.6590(a)(1)(i). However, this unit meets the criteria in 40 CFR 63.6590(b)(3), so no limits, recordkeeping, or notifications from 40 CFR pt. 63, subp. ZZZZ apply to this unit. [40 CFR 63.6590(a)(1)(i) and (b)(3), Minn. R. 7011.8150]
EQUI 692	Diesel Generator
5.348.1	Opacity <= 20 percent opacity once operating temperatures have been attained. [Minn. R. 7011.2300, subp. 1]
5.348.2	Sulfur Dioxide <= 0.0015 pounds per million Btu heat input. The potential to emit from the unit is 0.0015 lb/MMBtu due to equipment design and allowable fuels. [Minn. R. 7011.2300, subp. 2(B)]
5.348.3	Fuel type: Diesel only, by design. [Minn. R. 7005.0100, subp. 35a]
5.348.4	Hours of Operation: The Permittee shall maintain documentation on site that the unit is an emergency generator by design that qualifies under the U.S. EPA memorandum entitled "Calculating Potential to Emit (PTE) for Emergency Generators" dated September 6, 1995, that allows calculation of potential emissions based on 500 operating hours per year. [Minn. R. 7007.0800, subps. 4-5]
5.348.5	The Permittee shall keep records of fuel type and usage on a monthly basis. [Minn. R. 7007.0800, subp. 5]

Requirement number	Requirement and citation
5.348.6	Fuel Supplier Certification: The Permittee shall obtain and maintain a fuel supplier certification for each shipment of diesel fuel oil, certifying that the sulfur content does not exceed 0.0015 percent by weight. [Minn. R. 7007.0800, subps. 4-5]
5.348.7	At the time of permit issuance, EQUI 692 is considered an existing affected source under 40 CFR pt. 63, subp. ZZZZ as defined at 40 CFR 63.6590(a)(1)(i). However, this unit meets the criteria in 40 CFR 63.6590(b)(3), so no limits, recordkeeping, or notifications from 40 CFR pt, 63, subp. ZZZZ apply to this unit. [40 CFR 63.6590(a)(1)(i) and (b)(3), Minn. R. 7011.8150]
EQUI 693	Diesel Generator
5.349.1	Opacity <= 20 percent opacity once operating temperatures have been attained. [Minn. R. 7011.2300, subp. 1]
5.349.2	Sulfur Dioxide <= 0.0015 pounds per million Btu heat input. The potential to emit from the unit is 0.0015 lb/MMBtu due to equipment design and allowable fuels. [Minn. R. 7011.2300, subp. 2(B)]
5.349.3	Fuel type: Diesel only, by design. [Minn. R. 7005.0100, subp. 35a]
5.349.4	Hours of Operation: The Permittee shall maintain documentation on site that the unit is an emergency generator by design that qualifies under the U.S. EPA memorandum entitled "Calculating Potential to Emit (PTE) for Emergency Generators" dated September 6, 1995, that allows calculation of potential emissions based on 500 operating hours per year. [Minn. R. 7007.0800, subps. 4-5]
5.349.5	The Permittee shall keep records of fuel type and usage on a monthly basis. [Minn. R. 7007.0800, subp. 5]
5.349.6	Fuel Supplier Certification: The Permittee shall obtain and maintain a fuel supplier certification for each shipment of diesel fuel oil, certifying that the sulfur content does not exceed 0.0015 percent by weight. [Minn. R. 7007.0800, subps. 4-5]
5.349.7	At the time of permit issuance, EQUI 693 is considered an existing affected source under 40 CFR pt. 63, subp. ZZZZ as defined at 40 CFR 63.6590(a)(1)(i). However, this unit meets the criteria in 40 CFR 63.6590(b)(3), so no limits, recordkeeping, or notifications from 40 CFR pt, 63, subp. ZZZZ apply to this unit. [40 CFR 63.6590(a)(1)(i) and (b)(3), Minn. R. 7011.8150]
EQUI 694	Diesel Generator
5.350.1	Opacity <= 20 percent opacity once operating temperatures have been attained. [Minn. R. 7011.2300, subp. 1]
5.350.2	Sulfur Dioxide <= 0.0015 pounds per million Btu heat input. The potential to emit from the unit is 0.0015 lb/MMBtu due to equipment design and allowable fuels. [Minn. R. 7011.2300, subp. 2(B)]
5.350.3	Fuel type: Diesel only, by design. [Minn. R. 7005.0100, subp. 35a]
5.350.4	Hours of Operation: The Permittee shall maintain documentation on site that the unit is an emergency generator by design that qualifies under the U.S. EPA memorandum entitled "Calculating Potential to Emit (PTE) for Emergency Generators" dated September 6, 1995, that allows calculation of potential emissions based on 500 operating hours per year. [Minn. R. 7007.0800, subps. 4-5]
5.350.5	The Permittee shall keep records of fuel type and usage on a monthly basis. [Minn. R. 7007.0800, subp. 5]
5.350.6	Fuel Supplier Certification: The Permittee shall obtain and maintain a fuel supplier certification for each shipment of diesel fuel oil, certifying that the sulfur content does not exceed 0.0015 percent by weight. [Minn. R. 7007.0800, subps. 4-5]
5.350.7	At the time of permit issuance, EQUI 695 is considered an existing affected source under 40 CFR pt. 63, subp. ZZZZ as defined at 40 CFR 63.6590(a)(1)(i). However, this unit meets the criteria in 40 CFR 63.6590(b)(3), so no limits, recordkeeping, or notifications from 40 CFR pt, 63, subp. ZZZZ apply to this unit. [40 CFR 63.6590(a)(1)(i) and (b)(3), Minn. R. 7011.8150]
EQUI 696	Diesel Generator

Requirement number	Requirement and citation
5.351.1	Opacity <= 20 percent opacity once operating temperatures have been attained. [Minn. R. 7011.2300, subp. 1]
5.351.2	Sulfur Dioxide <= 0.0015 pounds per million Btu heat input. The potential to emit from the unit is 0.0015 lb/MMBtu due to equipment design and allowable fuels. [Minn. R. 7011.2300, subp. 2(B)]
5.351.3	Fuel type: Diesel only, by design. [Minn. R. 7005.0100, subp. 35a]
5.351.4	Hours of Operation: The Permittee shall maintain documentation on site that the unit is an emergency generator by design that qualifies under the U.S. EPA memorandum entitled "Calculating Potential to Emit (PTE) for Emergency Generators" dated September 6, 1995, that allows calculation of potential emissions based on 500 operating hours per year. [Minn. R. 7007.0800, subps. 4-5]
5.351.5	The Permittee shall keep records of fuel type and usage on a monthly basis. [Minn. R. 7007.0800, subp. 5]
5.351.6	Fuel Supplier Certification: The Permittee shall obtain and maintain a fuel supplier certification for each shipment of diesel fuel oil, certifying that the sulfur content does not exceed 0.0015 percent by weight. [Minn. R. 7007.0800, subps. 4-5]
5.351.7	At the time of permit issuance, EQUI 696 is considered an existing affected source under 40 CFR pt. 63, subp. ZZZZ as defined at 40 CFR 63.6590(a)(1)(i). However, this unit meets the criteria in 40 CFR 63.6590(b)(3), so no limits, recordkeeping, or notifications from 40 CFR pt. 63, subp. ZZZZ apply to this unit. [40 CFR 63.6590(a)(1)(i) and (b)(3), Minn. R. 7011.8150]
EQUI 697	Conveyor Transfer
5.352.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.352.2	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 698	Conveyor Transfer
5.353.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.353.2	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 699	Conveyor Transfer
5.354.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.354.2	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 700	Conveyor Transfer
5.355.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.355.2	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 701	Conveyor Transfer
5.356.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
5.356.2	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 702	Conveyor Transfer
5.357.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]

Requirement number	Requirement and citation
5.357.2	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 703	Fire Hall Emergency Generator
5.358.1	Opacity <= 20 percent opacity once operating temperatures have been attained. [Minn. R. 7011.2300, subp. 1]
5.358.2	Sulfur Dioxide <= 0.0015 pounds per million Btu heat input. The potential to emit from the unit is 0.0015 lb/MMBtu due to equipment design and allowable fuels. [Minn. R. 7011.2300, subp. 2(B)]
5.358.3	Fuel type: Diesel only, by design. [Minn. R. 7005.0100, subp. 35a]
5.358.4	Hours of Operation: The Permittee shall maintain documentation on site that the unit is an emergency generator by design that qualifies under the U.S. EPA memorandum entitled "Calculating Potential to Emit (PTE) for Emergency Generators" dated September 6, 1995, that allows calculation of potential emissions based on 500 operating hours per year. [Minn. R. 7007.0800, subps. 4-5]
5.358.5	The Permittee shall keep records of fuel type and usage on a monthly basis. [Minn. R. 7007.0800, subp. 5]
5.358.6	Fuel Supplier Certification: The Permittee shall obtain and maintain a fuel supplier certification for each shipment of diesel fuel oil, certifying that the sulfur content does not exceed 0.0015 percent by weight. [Minn. R. 7007.0800, subps. 4-5]
5.358.7	EQUI 703 is a new affected source as defined under 40 CFR pt. 63, subp. ZZZZ, and the facility is major source as defined at 40 CFR 63.2, and EQUI 703 is an emergency stationary RICE with a site rating of less than 500 brake HP. The Permittee shall meet the requirements of 40 CFR pt. 63, subp. ZZZZ by meeting the requirements of 40 CFR pt. 60, subp. IIII. No further requirements of 40 CFR pt. 63, subp. ZZZZ apply to EQUI 703. [40 CFR 63.6590(c), Minn. R. 7011.8150]
5.358.8	The Permittee must limit Sulfur Content of Fuel <= 15.0 parts per million and either a minimum cetane index of 40 or a maximum aromatic content of 35 percent by volume, as required by 40 CFR 1090.305. [40 CFR 60.4207(b), Minn. R. 7011.2305]
5.358.9	The Permittee must limit emissions of NMHC+NOx <= 6.5 grams per kilowatt-hour as described in 40 CFR pt. 1039, Appendix I. [40 CFR 60.4202(a)(2), 40 CFR 60.4205(b), Minn. R. 7011.2305]
5.358.10	The Permittee must limit emissions of Particulate Matter <= 0.20 grams per kilowatt-hour as described in 40 CFR pt. 1039, Appendix I. [40 CFR 60.4202(a)(2), 40 CFR 60.4205(b), Minn. R. 7011.2305]
5.358.11	The Permittee must limit emissions of Carbon Monoxide <= 3.5 grams per kilowatt-hour as described in 40 CFR pt. 1039, Appendix I. [40 CFR 60.4202(a)(2), 40 CFR 60.4205(b), Minn. R. 7011.2305]
5.358.12	The Permittee must limit emissions of Opacity <= 20 percent opacity during the acceleration mode. [40 CFR 60.4202(a)(2), 40 CFR 60.4205(b), Minn. R. 7011.2305]
5.358.13	The Permittee must limit emissions of Opacity <= 15 percent opacity during the lugging mode. [40 CFR 60.4202(a)(2), 40 CFR 60.4205(b), Minn. R. 7011.2305]
5.358.14	The Permittee must limit emissions of Opacity <= 50 percent opacity during the peaks in either the acceleration or lugging modes. [40 CFR 60.4202(a)(2), 40 CFR 60.4205(b), Minn. R. 7011.2305]
5.358.15	The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. IIII as follows: 40 CFR 60.4200(a)(2)(i); 40 CFR 60.4202(a)(2); 40 CFR 60.4205(b); 40 CFR 60.4206; 40 CFR 60.4207(b); 40 CFR 60.4208(a);

Requirement number	Requirement and citation
	40 CFR 60.4209(a); 40 CFR 60.4211(a); 40 CFR 60.4211(c); 40 CFR 60.4211(f)(1); 40 CFR 60.4211(f)(2)(i); 40 CFR 60.4211(f)(3); 40 CFR 60.4214(b); 40 CFR 60.4214(d); 40 CFR 60.4214(g)-(j); 40 CFR 60.4218; 40 CFR 60.4219; and 40 CFR pt. 60, subp. IIII, Table 8. A copy of 40 CFR pt. 60, subp. IIII is included in Appendix H. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 60, subp. IIII, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.2305]
5.358.16	The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. A as follows: 40 CFR 60.1; 40 CFR 60.2; 40 CFR 60.3; 40 CFR 60.4; 40 CFR 60.5; 40 CFR 60.6; 40 CFR 60.7; 40 CFR 60.9; 40 CFR 60.10; 40 CFR 60.12; 40 CFR 60.14; 40 CFR 60.15; 40 CFR 60.17; and 40 CFR 60.19. A copy of 40 CFR pt. 60, subp. A is included in Appendix C. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 60, subp. A, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.0050, subp. 1(A), Minn. R. 7017.1010 & 7017.2015, subp. 2, Minn. R. 7019.0100]
EQUI 704	Limestone Conveyor Transfer 2
5.359.1	The Permittee shall vent emissions from EQUI 704 to control equipment meeting the requirements of TREA 214 whenever EQUI 704 operates. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
5.359.2	Opacity <= 7 percent opacity. [40 CFR 60.672(a), Minn. R. 7011.3350]

Requirement number	Requirement and citation
5.359.3	Filterable Particulate Matter $\leq$ 0.022 grains per dry standard cubic foot. [40 CFR 60.672(a), 40 CFR pt. 60, subp. OOO(Table 2), Minn. R. 7011.3350]
5.359.4	The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. OOO as follows: 40 CFR 60.670(a); 40 CFR 60.670(d)-(f); 40 CFR 60.671; 40 CFR 60.672(a); 40 CFR 60.673; 40 CFR 60.675(a)-(b); 40 CFR 60.676(a)(3); 40 CFR 60.676(f); 40 CFR 60.676(j); 40 CFR 60.676(k); 40 CFR pt. 60, subp. OOO, Table 1; and 40 CFR pt. 60, subp. OOO, Table 2. A copy of 40 CFR pt. 60, subp. OOO is included in Appendix F. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 60, subp. OOO, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.3550]
5.359.5	The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. A as follows: 40 CFR 60.1; 40 CFR 60.2; 40 CFR 60.3; 40 CFR 60.4; 40 CFR 60.5; 40 CFR 60.7(a)-(b); 40 CFR 60.8; 40 CFR 60.9; 40 CFR 60.11(a)-(d); 40 CFR 60.11(e)(1)-(3) & (6)-(8); 40 CFR 60.11(f)-(g); 40 CFR 60.12; 40 CFR 60.14(a)-(c) & (e)-(g); 40 CFR 60.15; 40 CFR 60.17; and 40 CFR 60.19. A copy of 40 CFR pt. 60, subp. A is included in Appendix C. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 60, subp. A, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.0050, subp. 1(A), Minn. R. 7017.1010 & 7017.2015, subp. 2, Minn. R. 7019.0100]

Requirement number	Requirement and citation
EQUI 705	Limestone Dump Pocket
5.360.1	The Permittee shall vent emissions from EQUI 705 to control equipment meeting the requirements of TREA 90 whenever EQUI 705 operates. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
5.360.2	Opacity <= 7 percent opacity. [40 CFR 60.672(a), Minn. R. 7011.3350]
5.360.3	Filterable Particulate Matter <= 0.022 grains per dry standard cubic foot. [40 CFR 60.672(a), 40 CFR pt. 60, subp. OOO(Table 2), Minn. R. 7011.3350]
5.360.4	The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. OOO as follows: 40 CFR 60.670(a); 40 CFR 60.670(d)-(f); 40 CFR 60.671; 40 CFR 60.672(a); 40 CFR 60.673; 40 CFR 60.675(a)-(b); 40 CFR 60.676(a)(3); 40 CFR 60.676(f); 40 CFR 60.676(j); 40 CFR 60.676(k); 40 CFR pt. 60, subp. OOO, Table 1; and 40 CFR pt. 60, subp. OOO, Table 2. A copy of 40 CFR pt. 60, subp. OOO is included in Appendix F. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 60, subp. OOO, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.3550]
5.360.5	The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. A as follows: 40 CFR 60.1; 40 CFR 60.2; 40 CFR 60.3; 40 CFR 60.4; 40 CFR 60.5; 40 CFR 60.7(a)-(b); 40 CFR 60.8; 40 CFR 60.9; 40 CFR 60.11(a)-(d); 40 CFR 60.11(e)(1)-(3) & (6)-(8); 40 CFR 60.11(f)-(g); 40 CFR 60.12; 40 CFR 60.14(a)-(c) & (e)-(g); 40 CFR 60.15; 40 CFR 60.17; and 40 CFR 60.19. A copy of 40 CFR pt. 60, subp. A is included in Appendix C.

Requirement number	Requirement and citation
	If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 60, subp. A, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.0050, subp. 1(A), Minn. R. 7017.1010 & 7017.2015, subp. 2, Minn. R. 7019.0100]
EQUI 706	Step II Agglomerator Emergency Generator
5.361.1	Opacity <= 20 percent opacity once operating temperatures have been attained. [Minn. R. 7011.2300, subp. 1]
5.361.2	Sulfur Dioxide <= 0.0015 pounds per million Btu heat input. The potential to emit from the unit is 0.0015 lb/MMBtu due to equipment design and allowable fuels. [Minn. R. 7011.2300, subp. 2(B)]
5.361.3	Fuel type: Diesel only, by design. [Minn. R. 7005.0100, subp. 35a]
5.361.4	Hours of Operation: The Permittee shall maintain documentation on site that the unit is an emergency generator by design that qualifies under the U.S. EPA memorandum entitled "Calculating Potential to Emit (PTE) for Emergency Generators" dated September 6, 1995, that allows calculation of potential emissions based on 500 operating hours per year. [Minn. R. 7007.0800, subps. 4-5]
5.361.5	The Permittee shall keep records of fuel type and usage on a monthly basis. [Minn. R. 7007.0800, subp. 5]
5.361.6	Fuel Supplier Certification: The Permittee shall obtain and maintain a fuel supplier certification for each shipment of diesel fuel oil, certifying that the sulfur content does not exceed 0.0015 percent by weight. [Minn. R. 7007.0800, subps. 4-5]
5.361.7	At the time of permit issuance, EQUI 706 is considered a new affected source under 40 CFR pt. 63, subp. ZZZZ as defined at 40 CFR 63.6590(a)(2)(i). However, this unit meets the criteria in 40 CFR 63.6590(b)(1)(i) so no requirements of 40 CFR pt. 63, subps. A and ZZZZ, except the initial notification requirements of 40 CFR 63.6645(f), apply. [40 CFR 63.6590(a)(2)(i) and (b)(1)(i), Minn. R. 7011.8150]
5.361.8	The Permittee must limit Sulfur Content of Fuel <= 15.0 parts per million and either a minimum cetane index of 40 or a maximum aromatic content of 35 percent by volume, as required by 40 CFR 1090.305. [40 CFR 60.4207(b), Minn. R. 7011.2305]
5.361.9	The Permittee must limit emissions of NMHC+NOx <= 4.0 grams per kilowatt-hour as described in 40 CFR pt. 1039, Appendix I. [40 CFR 60.4202(a)(2), 40 CFR 60.4205(b), Minn. R. 7011.2305]
5.361.10	The Permittee must limit emissions of Particulate Matter <= 0.20 grams per kilowatt-hour as described in 40 CFR pt. 1039, Appendix I. [40 CFR 60.4202(a)(2), 40 CFR 60.4205(b), Minn. R. 7011.2305]
5.361.11	The Permittee must limit emissions of Carbon Monoxide <= 3.5 grams per kilowatt-hour as described in 40 CFR pt. 1039, Appendix I. [40 CFR 60.4202(a)(2), 40 CFR 60.4205(b), Minn. R. 7011.2305]
5.361.12	The Permittee must limit emissions of Opacity <= 20 percent opacity during the acceleration mode. [40 CFR 60.4202(a)(2), 40 CFR 60.4205(b), Minn. R. 7011.2305]
5.361.13	The Permittee must limit emissions of Opacity <= 15 percent opacity during the lugging mode. [40 CFR 60.4202(a)(2), 40 CFR 60.4205(b), Minn. R. 7011.2305]
5.361.14	The Permittee must limit emissions of Opacity <= 50 percent opacity during the peaks in either the acceleration or lugging modes. [40 CFR 60.4202(a)(2), 40 CFR 60.4205(b), Minn. R. 7011.2305]
5.361.15	The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. IIII as follows: 40 CFR 60.4200(a)(2)(i); 40 CFR 60.4202(a)(2); 40 CFR 60.4205(b); 40 CFR 60.4206;

Requirement number	Requirement and citation
	40 CFR 60.4207(b); 40 CFR 60.4208(a); 40 CFR 60.4209(a); 40 CFR 60.4211(a); 40 CFR 60.4211(c); 40 CFR 60.4211(f)(1); 40 CFR 60.4211(f)(2)(i); 40 CFR 60.4211(f)(3); 40 CFR 60.4214(b); 40 CFR 60.4214(d); 40 CFR 60.4214(g)-(j); 40 CFR 60.4218; 40 CFR 60.4219; and 40 CFR pt. 60, subp. IIII, Table 8. A copy of 40 CFR pt. 60, subp. IIII is included in Appendix G. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 60, subp. IIII, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.2305]
5.361.16	The Permittee must comply with all applicable requirements of 40 CFR pt. 60, subp. A as follows: 40 CFR 60.1(a)-(c); 40 CFR 60.2; 40 CFR 60.3; 40 CFR 60.4; 40 CFR 60.5(a)-(b); 40 CFR 60.6(a)-(b); 40 CFR 60.7(a)(1); 40 CFR 60.7(a)(3)-(7); 40 CFR 60.7(b)-(d); 40 CFR 60.9; 40 CFR 60.12; 40 CFR 60.14(a)-(l); 40 CFR 60.15(a)-(g); 40 CFR 60.17; 40 CFR 60.19(a)-(e); and 40 CFR 60.19(f)(1)-(4). A copy of 40 CFR pt. 60, subp. A is included in Appendix C. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 60, subp. A, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.0050, subp. 1(A), Minn. R. 7017.1010 & 7017.2015, subp. 2, Minn. R. 7019.0100]
EQUI 707	Line 3 Waste Gas Cyclone
5.362.1	EQUI 707 is a cyclone used for product recovery from EQUI 146. Therefore, EQUI 707 is considered

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	inherent process equipment and is not treated as or considered to be control equipment. Any replacement or change or modification of EQUI 707 is a replacement or change or modification of an emission unit for purposes of determining if a permit amendment is required. [Minn. R. 7005.0100, subp. 10b, Minn. R. 7005.1150-1500]
5.362.2	The Permittee shall vent emissions from EQUI 146 to EQUI 707 whenever EQUI 146 operates, and operate and maintain EQUI 707 at all times that any emissions are vented to EQUI 707. The Permittee shall document periods of non-operation of the control equipment EQUI 707 whenever EQUI 146 is operating. [Minn. R. 7007.0800, subp. 2(A) and (B)]
5.362.3	The Permittee shall observe the proper operation of the knife gate valve releasing dust from the cyclone at least once each operating day. [Minn. R. 7007.0800, subp. 2(A) & (B)]
5.362.4	The Permittee shall record the date and time of each observation of dust releasing from the cyclone via the knife gate valve. [Minn. R. 7007.0800, subps. 4-5]
5.362.5	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturing specifications, the Permittee must inspect the control equipment components. The Permittee must maintain a written record of these inspections. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.362.6	Corrective Actions: The Permittee must take corrective action as soon as possible if dust fails to release from the cyclone via the knife valve. Corrective actions must return the dust release mechanism to work properly and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the cyclone. The Permittee must keep a record of the type and date of any corrective action taken for each cyclone. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
EQUI 708	Line 4 Waste Gas Cyclone
5.363.1	EQUI 708 is a cyclone used for product recovery from EQUI 279. Therefore, EQUI 708 is considered inherent process equipment and is not treated as or considered to be control equipment. Any replacement or change or modification of EQUI 708 is a replacement or change or modification of an emission unit for purposes of determining if a permit amendment is required. [Minn. R. 7005.0100, subp. 10b, Minn. R. 7005.1150-1500]
5.363.2	The Permittee shall vent emissions from EQUI 279 to EQUI 708 whenever EQUI 279 operates, and operate and maintain EQUI 708 at all times that any emissions are vented to EQUI 708. The Permittee shall document periods of non-operation of the control equipment EQUI 708 whenever EQUI 279 is operating. [Minn. R. 7007.0800, subp. 2(A) and (B)]
5.363.3	The Permittee shall observe the proper operation of the knife gate valve releasing dust from the cyclone at least once each operating day. [Minn. R. 7007.0800, subp. 2(A) & (B)]
5.363.4	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturing specifications, the Permittee must inspect the control equipment components. The Permittee must maintain a written record of these inspections. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.363.5	The Permittee shall record the date and time of each observation of dust releasing from the cyclone via the knife gate valve. [Minn. R. 7007.0800, subps. 4-5]
5.363.6	Corrective Actions: The Permittee must take corrective action as soon as possible if dust fails to release from the cyclone via the knife valve. Corrective actions must return the dust release mechanism to work properly and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the cyclone. The Permittee must keep a record of the type and date of any corrective action taken for each cyclone. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]

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EQUI 709	Line 5 Waste Gas Cyclone
5.364.1	EQUI 709 is a cyclone used for product recovery from EQUI 280. Therefore, EQUI 709 is considered inherent process equipment and is not treated as or considered to be control equipment. Any replacement or change or modification of EQUI 709 is a replacement or change or modification of an emission unit for purposes of determining if a permit amendment is required. [Minn. R. 7005.0100, subp. 10b, Minn. R. 7005.1150-1500]
5.364.2	The Permittee shall vent emissions from EQUI 280 to EQUI 709 whenever EQUI 280 operates, and operate and maintain EQUI 709 at all times that any emissions are vented to EQUI 709. The Permittee shall document periods of non-operation of the control equipment EQUI 709 whenever EQUI 280 is operating. [Minn. R. 7007.0800, subp. 2(A) and (B)]
5.364.3	The Permittee shall observe the proper operation of the knife gate valve releasing dust from the cyclone at least once each operating day. [Minn. R. 7007.0800, subp. 2(A) & (B)]
5.364.4	The Permittee shall record the date and time of each observation of dust releasing from the cyclone via the knife gate valve. [Minn. R. 7007.0800, subps. 4-5]
5.364.5	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturing specifications, the Permittee must inspect the control equipment components. The Permittee must maintain a written record of these inspections. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.364.6	Corrective Actions: The Permittee must take corrective action as soon as possible if dust fails to release from the cyclone via the knife valve. Corrective actions must return the dust release mechanism to work properly and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the cyclone. The Permittee must keep a record of the type and date of any corrective action taken for each cyclone. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
EQUI 710	Line 6 Waste Gas Cyclone
5.365.1	EQUI 710 is a cyclone used for product recovery from EQUI 3. Therefore, EQUI 710 is considered inherent process equipment and is not treated as or considered to be control equipment. Any replacement or change or modification of EQUI 710 is a replacement or change or modification of an emission unit for purposes of determining if a permit amendment is required. [Minn. R. 7005.0100, subp. 10b, Minn. R. 7005.1150-1500]
5.365.2	The Permittee shall vent emissions from EQUI 3 to EQUI 710 whenever EQUI 3 operates, and operate and maintain EQUI 710 at all times that any emissions are vented to EQUI 710. The Permittee shall document periods of non-operation of the control equipment EQUI 710 whenever EQUI 3 is operating. [Minn. R. 7007.0800, subp. 2(A) and (B)]
5.365.3	The Permittee shall observe the proper operation of the knife gate valve releasing dust from the cyclone at least once each operating day. [Minn. R. 7007.0800, subp. 2(A) & (B)]
5.365.4	The Permittee shall record the date and time of each observation of dust releasing from the cyclone via the knife gate valve. [Minn. R. 7007.0800, subps. 4-5]
5.365.5	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturing specifications, the Permittee must inspect the control equipment components. The Permittee must maintain a written record of these inspections. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.365.6	Corrective Actions: The Permittee must take corrective action as soon as possible if dust fails to release from the cyclone via the knife valve. Corrective actions must return the dust release mechanism to work properly and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the cyclone. The Permittee must

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	keep a record of the type and date of any corrective action taken for each cyclone. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
EQUI 711	Line 7 Waste Gas Cyclone
5.366.1	EQUI 711 is a cyclone used for product recovery from EQUI 179. Therefore, EQUI 711 is considered inherent process equipment and is not treated as or considered to be control equipment. Any replacement or change or modification of EQUI 711 is a replacement or change or modification of an emission unit for purposes of determining if a permit amendment is required. [Minn. R. 7005.0100, subp. 10b, Minn. R. 7005.1150-1500]
5.366.2	The Permittee shall vent emissions from EQUI 179 to EQUI 711 whenever EQUI 179 operates, and operate and maintain EQUI 711 at all times that any emissions are vented to EQUI 711. The Permittee shall document periods of non-operation of the control equipment EQUI 711 whenever EQUI 179 is operating. [Minn. R. 7007.0800, subp. 2(A) and (B)]
5.366.3	The Permittee shall observe the proper operation of the knife gate valve releasing dust from the cyclone at least once each operating day. [Minn. R. 7007.0800, subp. 2(A) & (B)]
5.366.4	The Permittee shall record the date and time of each observation of dust releasing from the cyclone via the knife gate valve. [Minn. R. 7007.0800, subps. 4-5]
5.366.5	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturing specifications, the Permittee must inspect the control equipment components. The Permittee must maintain a written record of these inspections. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.366.6	Corrective Actions: The Permittee must take corrective action as soon as possible if dust fails to release from the cyclone via the knife valve. Corrective actions must return the dust release mechanism to work properly and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the cyclone. The Permittee must keep a record of the type and date of any corrective action taken for each cyclone. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
EQUI 712	Burnout Oven
5.367.1	Opacity <= 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity. [Minn. R. 7011.0610, subp. 1(A)(2)]
5.367.2	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0610, subp. 1(A)(1)]
5.367.3	Fuel type: Natural gas only, by design. [Minn. R. 7005.0100, subp. 35a]
5.367.4	The Permittee shall keep records of fuel purchases showing fuel types. [Minn. R. 7007.0800, subp. 5]
FUGI 1	Group 13 screened pellets stock pile
5.368.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0110]
5.368.2	Daily Visible Emissions Check: On each day of operation, the Permittee must check visible emissions at FUGI 1 as described in the fugitive dust control plan in Appendix B of the permit. If the Permittee observes visible emissions, the Permittee must investigate the condition and conduct appropriate corrective actions to eliminate the visible emissions. [Minn. R. 7007.0800, subp. 2(A)]
5.368.3	Visible Emissions Recordkeeping: The Permittee must record the following: - The date, time, and location of each visible emission check; - If the Permittee observed visible emissions; and - If the Permittee observed visible emissions, the time the corrective actions occurred, what the corrective actions were, and whether the corrective actions eliminated the visible emissions. [Minn. R. 7007.0800, subps. 4-5]

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FUGI 3	Coarse tailings stock pile
5.369.1	Opacity <= 20 percent opacity except for one six-minute period per hour of not more than 33 percent opacity. [Minn. R. 7011.0105]
FUGI 4	Ballast fines rock stock pile - east pit
5.370.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0110]
5.370.2	Daily Visible Emissions Check: On each day of operation, the Permittee must check visible emissions at FUGI 4 as described in the fugitive dust control plan in Appendix B of the permit. If the Permittee observes visible emissions, the Permittee must investigate the condition and conduct appropriate corrective actions to eliminate the visible emissions. [Minn. R. 7007.0800, subp. 2(A)]
5.370.3	Visible Emissions Recordkeeping: The Permittee must record the following: - The date, time, and location of each visible emission check; - If the Permittee observed visible emissions; and - If the Permittee observed visible emissions, the time the corrective actions occurred, what the corrective actions were, and whether the corrective actions eliminated the visible emissions. [Minn. R. 7007.0800, subps. 4-5]
FUGI 5	Ballast product rock stock pile - western
5.371.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0110]
5.371.2	Daily Visible Emissions Check: On each day of operation, the Permittee must check visible emissions at FUGI 5 as described in the fugitive dust control plan in Appendix B of the permit. If the Permittee observes visible emissions, the Permittee must investigate the condition and conduct appropriate corrective actions to eliminate the visible emissions. [Minn. R. 7007.0800, subp. 2(A)]
5.371.3	Visible Emissions Recordkeeping: The Permittee must record the following: - The date, time, and location of each visible emission check; - If the Permittee observed visible emissions; and - If the Permittee observed visible emissions, the time the corrective actions occurred, what the corrective actions were, and whether the corrective actions eliminated the visible emissions. [Minn. R. 7007.0800, subps. 4-5]
FUGI 6	Surface overburden stock pile
5.372.1	Opacity <= 20 percent opacity except for one six-minute period per hour of not more than 33 percent opacity. [Minn. R. 7011.0105]
5.372.2	Daily Visible Emissions Check: On each day of operation, the Permittee must check visible emissions at FUGI 6 as described in the fugitive dust control plan in Appendix B of the permit. If the Permittee observes visible emissions, the Permittee must investigate the condition and conduct appropriate corrective actions to eliminate the visible emissions. [Minn. R. 7007.0800, subp. 2(A)]
5.372.3	Visible Emissions Recordkeeping: The Permittee must record the following: - The date, time, and location of each visible emission check; - If the Permittee observed visible emissions; and - If the Permittee observed visible emissions, the time the corrective actions occurred, what the corrective actions were, and whether the corrective actions eliminated the visible emissions. [Minn. R. 7007.0800, subps. 4-5]
FUGI 8	Unpaved road for heavy-duty vehicles
5.373.1	Opacity <= 20 percent opacity except for one six-minute period per hour of not more than 33 percent opacity. [Minn. R. 7011.0105]
5.373.2	Daily Visible Emissions Check: On each day of operation, the Permittee must check visible emissions at FUGI 8 as described in the fugitive dust control plan in Appendix B of the permit. If the Permittee observes visible emissions, the Permittee must investigate the condition and conduct appropriate corrective actions to eliminate the visible emissions. [Minn. R. 7007.0800, subp. 2(A)]

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5.373.3	Visible Emissions Recordkeeping: The Permittee must record the following: - The date, time, and location of each visible emission check; - If the Permittee observed visible emissions; and - If the Permittee observed visible emissions, the time the corrective actions occurred, what the corrective actions were, and whether the corrective actions eliminated the visible emissions. [Minn. R. 7007.0800, subps. 4-5]
5.373.4	The Permittee must control emissions from FUGI 8 using the water sprays TREA 268 according to control methods for water application to roads outlined in the fugitive dust control plan. The Permittee must apply water at a rate and frequency to maintain adequate moisture throughout the process and to eliminate visible emissions. [Minn. R. 7007.0800, subp. 2(A)]
FUGI 9	Crude Ore Stock Pile
5.374.1	Opacity <= 20 percent opacity except for one six-minute period per hour of not more than 33 percent opacity. [Minn. R. 7011.0105]
5.374.2	Daily Visible Emissions Check: On each day of operation, the Permittee must check visible emissions at FUGI 9 as described in the fugitive dust control plan in Appendix B of the permit. If the Permittee observes visible emissions, the Permittee must investigate the condition and conduct appropriate corrective actions to eliminate the visible emissions. [Minn. R. 7007.0800, subp. 2(A)]
5.374.3	Visible Emissions Recordkeeping: The Permittee must record the following: - The date, time, and location of each visible emission check; - If the Permittee observed visible emissions; and - If the Permittee observed visible emissions, the time the corrective actions occurred, what the corrective actions were, and whether the corrective actions eliminated the visible emissions. [Minn. R. 7007.0800, subps. 4-5]
FUGI 10	Group 13 screened fines stock pile
5.375.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0110]
5.375.2	Daily Visible Emissions Check: On each day of operation, the Permittee must check visible emissions at FUGI 10 as described in the fugitive dust control plan in Appendix B of the permit. If the Permittee observes visible emissions, the Permittee must investigate the condition and conduct appropriate corrective actions to eliminate the visible emissions. [Minn. R. 7007.0800, subp. 2(A)]
5.375.3	Visible Emissions Recordkeeping: The Permittee must record the following: - The date, time, and location of each visible emission check; - If the Permittee observed visible emissions; and - If the Permittee observed visible emissions, the time the corrective actions occurred, what the corrective actions were, and whether the corrective actions eliminated the visible emissions. [Minn. R. 7007.0800, subps. 4-5]
FUGI 11	Ballast feed rock stock pile - east pit
5.376.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0110]
FUGI 12	Waste Rock Stock Pile
5.377.1	Opacity <= 20 percent opacity except for one six-minute period per hour of not more than 33 percent opacity. [Minn. R. 7011.0105]
FUGI 14	Step I/II crude ore stock pile
5.378.1	Opacity <= 20 percent opacity except for one six-minute period per hour of not more than 33 percent opacity. [Minn. R. 7011.0105]
5.378.2	Daily Visible Emissions Check: On each day of operation, the Permittee must check visible emissions at FUGI 14 as described in the fugitive dust control plan in Appendix B of the permit. If the Permittee observes visible emissions, the Permittee must investigate the condition and conduct appropriate corrective actions to eliminate the visible emissions. [Minn. R. 7007.0800, subp. 2(A)]

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5.378.3	Visible Emissions Recordkeeping: The Permittee must record the following: - The date, time, and location of each visible emission check; - If the Permittee observed visible emissions; and - If the Permittee observed visible emissions, the time the corrective actions occurred, what the corrective actions were, and whether the corrective actions eliminated the visible emissions. [Minn. R. 7007.0800, subps. 4-5]
FUGI 15	Step II/III concentrate stock pile
5.379.1	Opacity <= 20 percent opacity except for one six-minute period per hour of not more than 33 percent opacity. [Minn. R. 7011.0105]
5.379.2	Daily Visible Emissions Check: On each day of operation, the Permittee must check visible emissions at FUGI 15 as described in the fugitive dust control plan in Appendix B of the permit. If the Permittee observes visible emissions, the Permittee must investigate the condition and conduct appropriate corrective actions to eliminate the visible emissions. [Minn. R. 7007.0800, subp. 2(A)]
5.379.3	Visible Emissions Recordkeeping: The Permittee must record the following: - The date, time, and location of each visible emission check; - If the Permittee observed visible emissions; and - If the Permittee observed visible emissions, the time the corrective actions occurred, what the corrective actions were, and whether the corrective actions eliminated the visible emissions. [Minn. R. 7007.0800, subps. 4-5]
FUGI 16	Tailings Basin
5.380.1	Opacity <= 20 percent opacity except for one six-minute period per hour of not more than 33 percent opacity. [Minn. R. 7011.0105]
5.380.2	Daily Visible Emissions Check: On each day of operation, the Permittee must check visible emissions at FUGI 16 as described in the fugitive dust control plan in Appendix B of the permit. If the Permittee observes visible emissions, the Permittee must investigate the condition and conduct appropriate corrective actions to eliminate the visible emissions. [Minn. R. 7007.0800, subp. 2(A)]
5.380.3	Visible Emissions Recordkeeping: The Permittee must record the following: - The date, time, and location of each visible emission check; - If the Permittee observed visible emissions; and - If the Permittee observed visible emissions, the time the corrective actions occurred, what the corrective actions were, and whether the corrective actions eliminated the visible emissions. [Minn. R. 7007.0800, subps. 4-5]
FUGI 17	Step I/II pellet main stock pile #45
5.381.1	Opacity <= 20 percent opacity except for one six-minute period per hour of not more than 33 percent opacity. [Minn. R. 7011.0105]
5.381.2	Daily Visible Emissions Check: On each day of operation, the Permittee must check visible emissions at FUGI 17 as described in the fugitive dust control plan in Appendix B of the permit. If the Permittee observes visible emissions, the Permittee must investigate the condition and conduct appropriate corrective actions to eliminate the visible emissions. [Minn. R. 7007.0800, subp. 2(A)]
5.381.3	Visible Emissions Recordkeeping: The Permittee must record the following: - The date, time, and location of each visible emission check; - If the Permittee observed visible emissions; and - If the Permittee observed visible emissions, the time the corrective actions occurred, what the corrective actions were, and whether the corrective actions eliminated the visible emissions. [Minn. R. 7007.0800, subps. 4-5]
FUGI 18	Blasting & material handling
5.382.1	Opacity <= 20 percent opacity except for one six-minute period per hour of not more than 33 percent

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	opacity. [Minn. R. 7011.0105]
FUGI 19	Step I/II Crude Ore Stockpile Temp 72
5.383.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0110]
5.383.2	Daily Visible Emissions Check: On each day of operation, the Permittee must check visible emissions at FUGI 19 as described in the fugitive dust control plan in Appendix B of the permit. If the Permittee observes visible emissions, the Permittee must investigate the condition and conduct appropriate corrective actions to eliminate the visible emissions. [Minn. R. 7007.0800, subp. 2(A)]
5.383.3	Visible Emissions Recordkeeping: The Permittee must record the following: - The date, time, and location of each visible emission check; - If the Permittee observed visible emissions; and - If the Permittee observed visible emissions, the time the corrective actions occurred, what the corrective actions were, and whether the corrective actions eliminated the visible emissions. [Minn. R. 7007.0800, subps. 4-5]
FUGI 20	Unpaved road for secondary vehicles
5.384.1	Opacity <= 20 percent opacity except for one six-minute period per hour of not more than 33 percent opacity. [Minn. R. 7011.0105]
5.384.2	Daily Visible Emissions Check: On each day of operation, the Permittee must check visible emissions at FUGI 20 as described in the fugitive dust control plan in Appendix B of the permit. If the Permittee observes visible emissions, the Permittee must investigate the condition and conduct appropriate corrective actions to eliminate the visible emissions. [Minn. R. 7007.0800, subp. 2(A)]
5.384.3	Visible Emissions Recordkeeping: The Permittee must record the following: - The date, time, and location of each visible emission check; - If the Permittee observed visible emissions; and - If the Permittee observed visible emissions, the time the corrective actions occurred, what the corrective actions were, and whether the corrective actions eliminated the visible emissions. [Minn. R. 7007.0800, subps. 4-5]
5.384.4	The Permittee must control emissions from FUGI 20 using the water sprays TREA 268 according to control methods for water application to roads outlined in the fugitive dust control plan. The Permittee must apply water at a rate and frequency to maintain adequate moisture throughout the process and to eliminate visible emissions. [Minn. R. 7007.0800, subp. 2(A)]
FUGI 21	Step III Crude Ore Stockpile Temp 74
5.385.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0110]
5.385.2	Daily Visible Emissions Check: On each day of operation, the Permittee must check visible emissions at FUGI 21 as described in the fugitive dust control plan in Appendix B of the permit. If the Permittee observes visible emissions, the Permittee must investigate the condition and conduct appropriate corrective actions to eliminate the visible emissions. [Minn. R. 7007.0800, subp. 2(A)]
5.385.3	Visible Emissions Recordkeeping: The Permittee must record the following: - The date, time, and location of each visible emission check; - If the Permittee observed visible emissions; and - If the Permittee observed visible emissions, the time the corrective actions occurred, what the corrective actions were, and whether the corrective actions eliminated the visible emissions. [Minn. R. 7007.0800, subps. 4-5]
FUGI 22	Ballast product rock stock pile - east pit
5.386.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0110]
5.386.2	Daily Visible Emissions Check: On each day of operation, the Permittee must check visible emissions at FUGI 22 as described in the fugitive dust control plan in Appendix B of the permit. If the Permittee observes visible emissions, the Permittee must investigate the condition and conduct appropriate

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	corrective actions to eliminate the visible emissions. [Minn. R. 7007.0800, subp. 2(A)]
5.386.3	Visible Emissions Recordkeeping: The Permittee must record the following: - The date, time, and location of each visible emission check; - If the Permittee observed visible emissions; and - If the Permittee observed visible emissions, the time the corrective actions occurred, what the corrective actions were, and whether the corrective actions eliminated the visible emissions. [Minn. R. 7007.0800, subps. 4-5]
FUGI 23	Step I/II pellet main stock pile #44
5.387.1	Opacity <= 20 percent opacity except for one six-minute period per hour of not more than 33 percent opacity. [Minn. R. 7011.0105]
5.387.2	Daily Visible Emissions Check: On each day of operation, the Permittee must check visible emissions at FUGI 23 as described in the fugitive dust control plan in Appendix B of the permit. If the Permittee observes visible emissions, the Permittee must investigate the condition and conduct appropriate corrective actions to eliminate the visible emissions. [Minn. R. 7007.0800, subp. 2(A)]
5.387.3	Visible Emissions Recordkeeping: The Permittee must record the following: - The date, time, and location of each visible emission check; - If the Permittee observed visible emissions; and - If the Permittee observed visible emissions, the time the corrective actions occurred, what the corrective actions were, and whether the corrective actions eliminated the visible emissions. [Minn. R. 7007.0800, subps. 4-5]
FUGI 24	Group 13 feed stock pile
5.388.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0110]
FUGI 25	Ballast fines rock stock pile - western
5.389.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0110]
5.389.2	Daily Visible Emissions Check: On each day of operation, the Permittee must check visible emissions at FUGI 25 as described in the fugitive dust control plan in Appendix B of the permit. If the Permittee observes visible emissions, the Permittee must investigate the condition and conduct appropriate corrective actions to eliminate the visible emissions. [Minn. R. 7007.0800, subp. 2(A)]
5.389.3	Visible Emissions Recordkeeping: The Permittee must record the following: - The date, time, and location of each visible emission check; - If the Permittee observed visible emissions; and - If the Permittee observed visible emissions, the time the corrective actions occurred, what the corrective actions were, and whether the corrective actions eliminated the visible emissions. [Minn. R. 7007.0800, subps. 4-5]
FUGI 26	Unpaved road for light-duty vehicles
5.390.1	Opacity <= 20 percent opacity except for one six-minute period per hour of not more than 33 percent opacity. [Minn. R. 7011.0105]
5.390.2	Daily Visible Emissions Check: On each day of operation, the Permittee must check visible emissions at FUGI 26 as described in the fugitive dust control plan in Appendix B of the permit. If the Permittee observes visible emissions, the Permittee must investigate the condition and conduct appropriate corrective actions to eliminate the visible emissions. [Minn. R. 7007.0800, subp. 2(A)]
5.390.3	Visible Emissions Recordkeeping: The Permittee must record the following: - The date, time, and location of each visible emission check; - If the Permittee observed visible emissions; and - If the Permittee observed visible emissions, the time the corrective actions occurred, what the corrective actions were, and whether the corrective actions eliminated the visible emissions. [Minn. R. 7007.0800, subps. 4-5]

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FUGI 27	Scrap rod stock pile
5.391.1	Opacity <= 20 percent opacity except for one six-minute period per hour of not more than 33 percent opacity. [Minn. R. 7011.0105]
FUGI 28	Step III pellet main stock pile
5.392.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0110]
5.392.2	Daily Visible Emissions Check: On each day of operation, the Permittee must check visible emissions at FUGI 28 as described in the fugitive dust control plan in Appendix B of the permit. If the Permittee observes visible emissions, the Permittee must investigate the condition and conduct appropriate corrective actions to eliminate the visible emissions. [Minn. R. 7007.0800, subp. 2(A)]
5.392.3	Visible Emissions Recordkeeping: The Permittee must record the following: - The date, time, and location of each visible emission check; - If the Permittee observed visible emissions; and - If the Permittee observed visible emissions, the time the corrective actions occurred, what the corrective actions were, and whether the corrective actions eliminated the visible emissions. [Minn. R. 7007.0800, subps. 4-5]
FUGI 29	Ballast feed rock stock pile - western
5.393.1	Opacity <= 20 percent opacity. [Minn. R. 7011.0110]
FUGI 36	Contractor Activities
5.394.1	For each activity contracted by the Permittee that emits or has the potential to emit any air contaminant or pollution, the Permittee must retain the following records: 1. Contractor name; 2. The dates the contractor operated on site; 3. Daily hours of operation; 4. A description of the activities contracted by the Permittee, including types and amounts of materials handled and the end use of the material; 5. Location(s) where the activities occur; 6. Copies of any contracts for service for the activity; 7. A determination of whether each activity is part of the single stationary source, per the major source definition in 40 CFR 70.2; 8. A list of the equipment operated on-site by the contractor; and 9. Estimated emissions for the contracted activities. [Minn. R. 7007.0800, subps. 4-5]
5.394.2	The Permittee must include all activities contracted by the Permittee in the emission inventory required by Minn. R. 7019.3000-7019.3100. [Minn. R. 7019.3000 - 7019.3100]
5.394.3	The Permittee must require the contractor to provide certified records confirming units brought on-site demonstrate compliance with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9591(a) & (d); 40 CFR 63.9600(a); 40 CFR 63.9610(a); 40 CFR 63.9635; 40 CFR 63.9637; 40 CFR 63.9641(a)-(d), (g), & (h); 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; 40 CFR 63.9650; and 40 CFR pt. 63, subp. RRRRR, Table 4, as specified elsewhere in this permit.

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	A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7011.8030]
5.394.4	The Permittee must require the contractor to provide certified records confirming units brought on-site demonstrate compliance with all applicable requirements of 40 CFR pt. 60, subp. LL, as follows: 40 CFR 60.380; 40 CFR 60.382(b); 40 CFR 60.385(a); and 40 CFR 60.386(b)(2). A copy of 40 CFR pt. 60, subp. LL is included in Appendix E. [40 CFR pt. 60, subp. LL, Minn. R. 7011.2700]
5.394.5	The Permittee must require the contractor to provide certified records confirming units brought on-site demonstrate compliance with all applicable requirements of 40 CFR pt. 60, subp. OOO, as follows: 40 CFR 60.670; 40 CFR 60.672(b); 40 CFR 60.675(a); 40 CFR 60.675(c)(3); 40 CFR 60.676(f); and 40 CFR pt. 60, subp. OOO, Table 3. A copy of 40 CFR pt. 60, subp. OOO is included in Appendix F. [40 CFR pt. 60, subp. OOO, Minn. R. 7011.3350]
5.394.6	Activities contracted by the Permittee are limited to the following maximum material throughputs, on a 12-month rolling sum basis: 1. 505,000 tons metallic fines 2. 2,585,000 tons metallic non-fines 3. 1,835,000 tons non-metallic material Activities contracted by the Permittee that are authorized by this permit are defined as 1. Metallic fines: concentrate, filter cake, etc. 2. Metallic non-fines: ball mill balls, chips, sinter, pellets, ore, etc. 3. Non-metallic material: fluxstone, rock, gravel, stemming, refractory, soil, road rock, filter rock, BFT, Ballast, etc. [Minn. R. 7007.0800, subp. 2(B)]
5.394.7	Recordkeeping: On each day of operation, the Permittee shall require the contractor to calculate, record, and maintain a record of the material throughput for each activity contracted by the Permittee and provide the information to the Permittee upon request. The Permittee must require the contractor to provide a monthly summary for each activity to the Permittee. This shall be based on written logs and/or electronic monitors. [Minn. R. 7007.0800, subps. 4-5]
5.394.8	By the 20th day of each month, the Permittee must calculate and record the following: 1) The monthly material throughput for each activity contracted by the Permittee for the previous month. 2) The 12-month rolling sum of monthly material throughput for each activity contracted by the Permittee. 3) Whether the 12-month rolling sums exceed the historical maximum material throughput identified elsewhere in this permit. [Minn. R. 7007.0800, subps. 4-5]
5.394.9	Daily Visible Emissions Check: On each day of operation, the Permittee, the contractor, or a designee must check visible emissions for each activity contracted by the Permittee. If visible emissions are observed, the Permittee shall ensure that the contractor investigates the condition and conduct

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	appropriate corrective actions to eliminate the visible emissions. [Minn. R. 7007.0800, subp. 2(A)]
5.394.10	Visible Emissions Recordkeeping: The Permittee, the contractor, or a designee must record the following: - The date, time, and location of each visible emission check; - If the Permittee observed visible emissions; and - If the Permittee observed visible emissions, the time the corrective actions occurred, what the corrective actions were, and whether the corrective actions eliminated the visible emissions. [Minn. R. 7007.0800, subp. 4-5]
TREA 37	Agglomerator II Line 4 Waste Gas Scrubber
5.395.1	The Permittee shall vent emissions from EQUI 279 to TREA 37 whenever EQUI 279 operates, and operate and maintain TREA 37 at all times that any emissions are vented to TREA 37. The Permittee shall document periods of non-operation of the control equipment TREA 37 whenever EQUI 279 is operating. [Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
5.395.2	If the Permittee replaces TREA 37, the replacement control must meet or exceed the control efficiency requirements of TREA 37 as well as comply with all other requirements of TREA 37. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
5.395.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 97.1 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(B)]
5.395.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 89.2 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(B)]
5.395.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 81.9 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(B)]
5.395.6	Pressure Drop ≥ 6.6 inches of water daily average (Pressure Drop Range Limit) as determined during the September 2023 performance test, unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), 40 CFR 64.3, Minn. R. 7011.8030, Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
5.395.7	Water flow rate ≥ 2322 gallons per minute daily average (Flow Rate Limit) as determined during the September 2023 performance test, unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), 40 CFR 64.3, Minn. R. 7011.8030, Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
5.395.8	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9590(c); 40 CFR 63.9590(b)(1); 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (3); 40 CFR 63.9610(a); 40 CFR 63.9622(f); 40 CFR 63.9631(b);

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	40 CFR 63.9632(b)-(e); 40 CFR 63.9633; 40 CFR 63.9634(a), (e), & (j); 40 CFR 63.9636(a)(1) & (3); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.395.9	The Permittee shall operate and maintain the scrubber in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.395.10	The Permittee shall maintain and operate a pressure drop monitoring device that continuously indicates and records the pressure drop across the scrubber every 15 minutes. The permittee shall maintain and operate a water flow monitoring device that indicates and records the water flow rate of the scrubber every 15 minutes. The recording device shall also calculate the three-hour rolling average pressure drop and water flow rate. [40 CFR 64.3(b)(ii), Minn. R. 7017.0200]
5.395.11	The Permittee shall maintain a continuous hard copy readout or computer disk file of the pressure drop readings and water flow rate readings. Readings outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [40 CFR 64.9(b), Minn. R. 7007.0800, subps. 4-5, Minn. R. 7017.0200]
5.395.12	If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. [40 CFR 64.3, Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.0200, Minn. R. 7017.2025]
5.395.13	If the recorded water flow rate is below the Water Flow Rate Limit, the emissions during that time shall be considered uncontrolled until the water flow rate is above the Water Flow Rate Limit. The period of time for which emissions are considered uncontrolled shall be reported as a deviation. [40 CFR 64.3, Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.0200, Minn. R. 7017.2025]
5.395.14	Pressure Drop: Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop and water flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation. [40 CFR 64.7(b), Minn. R. 7017.0200]
5.395.15	Annual Calibration: The Permittee shall calibrate the pressure drop monitor at least once every 12 months and shall maintain a written record of the calibration and any action resulting from the calibration. [40 CFR 64.3, Minn. R. 7017.0200]
5.395.16	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the wet scrubber. The Permittee must maintain a written record of the inspection and any corrective actions

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	taken resulting from the inspection. [40 CFR 64.3, Minn. R. 7017.0200]
5.395.17	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the wet scrubber not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [40 CFR 64.3, Minn. R. 7017.0200]
5.395.18	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded pressure drop is outside the required operating range; or - the recorded water flow rate is below the required operating range; or - the scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop to within the permitted range and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for each control device. [40 CFR 64.7(d), Minn. R. 7017.0200]
5.395.19	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee shall calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time. The established Pressure Drop Range Limit shall be reset as follows: - Using the CPMS, measure and record the pressure drop every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average pressure drop for each individual test run. - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is below the minimum value of the established range, the Pressure Drop Limit shall be reset as the lowest 1-hour average pressure drop corresponding to any of the three test runs. Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [40 CFR 63.9622(f), Minn. R. 7017.2025, Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
5.395.20	Protocol for Resetting the Water Flow Rate Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Water Flow Rate Limit is to be reset, the reset shall be based on the water flow rate values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Flow Rate Limit shall be reset as follows: - Using the CPMS, measure and record the scrubber water flow rate every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as

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	operating time. - Calculate and record the average scrubber water flow rate for each individual test run. - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is below the minimum value of the established range, the Pressure Drop Limit shall be reset as the lowest 1-hour average pressure drop corresponding to any of the three test runs. Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Water Flow Rate Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [40 CFR 63.9622(f), Minn. R. 7017.2025, Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
5.395.21	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.395.22	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
5.395.23	Documentation of Need for Improved Monitoring: If the Permittee fails to achieve compliance with an emission limitation or standard for which the monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing pressure drop range or minimum water flow rate, the Permittee shall promptly notify the MPCA and, if necessary, submit a permit amendment application to address the necessary monitoring change. [40 CFR 64.7(e), Minn. R. 7017.0200]
5.395.24	As required by 40 CFR 64.9(a)(2), for the Semi-Annual Deviations Report required by this permit and/or the Notification of Deviations Endangering Human Health and the Environment required by this permit, as applicable, the Permittee shall include the following related to the monitoring identified as required by 40 CFR pt. 64: 1) Summary information on the number, duration, and cause of excursions or exceedances, as applicable, and the corrective action taken; and 2) Summary information on the number, duration, and cause for monitor downtime incidents. [40 CFR 64.9(a)(2), Minn. R. 7017.0200]
5.395.25	The Permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, and other supporting information required to be maintained. The Permittee may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements. [40 CFR 64.9(b), Minn. R. 7017.0200]
TREA 38	Line 5 Waste Gas Scrubber
5.396.1	The Permittee shall vent emissions from EQUI 280 to TREA 38 whenever EQUI 280 operates, and operate and maintain TREA 38 at all times that any emissions are vented to TREA 38. The Permittee shall document periods of non-operation of the control equipment TREA 38 whenever TREA 38 is operating. [Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
5.396.2	If the Permittee replaces TREA 38, the replacement control must meet or exceed the control efficiency requirements of TREA 38 as well as comply with all other requirements of TREA 38. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable.

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	If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
5.396.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 97.1 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2]
5.396.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 89.2 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2]
5.396.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 81.9 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2]
5.396.6	Pressure Drop ≥ 6.5 inches of water daily average (Pressure Drop Range Limit) as determined during the September 2023 performance test, unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. [40 CFR 63.9590(b)(1), 40 CFR 64.3, Minn. R. 7011.8030, Minn. R. 7017.2025, Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
5.396.7	Water flow rate ≥ 2298 gallons per minute daily average (Flow Rate Limit) as determined during the September 2023 performance test, unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), 40 CFR 64.3, Minn. R. 7011.8030, Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
5.396.8	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9590(c); 40 CFR 63.9590(b)(1); 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (3); 40 CFR 63.9610(a); 40 CFR 63.9622(f); 40 CFR 63.9631(b); 40 CFR 63.9632(b)-(e); 40 CFR 63.9633; 40 CFR 63.9634(a), (e), & (j); 40 CFR 63.9636(a)(1) & (3); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to

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	Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.396.9	The Permittee shall operate and maintain the scrubber in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.396.10	The Permittee shall maintain and operate a pressure drop monitoring device that continuously indicates and records the pressure drop across the scrubber. The recording device shall also calculate the three-hour rolling average pressure drop. [40 CFR 64.3(b)(ii), Minn. R. 7017.0200]
5.396.11	The Permittee shall maintain a continuous hard copy readout or computer disk file of the pressure drop readings. Readings outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [40 CFR 64.9(b), Minn. R. 7007.0800, subps. 4-5, Minn. R. 7017.0200]
5.396.12	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop and water flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation. [40 CFR 64.7(b), Minn. R. 7017.0200]
5.396.13	If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. [40 CFR 64.3, Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.0200, Minn. R. 7017.2025]
5.396.14	If the recorded water flow rate is below the Water Flow Rate Limit, the emissions during that time shall be considered uncontrolled until the water flow rate is above the Water Flow Rate Limit. The period of time for which emissions are considered uncontrolled shall be reported as a deviation. [40 CFR 64.3, Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.0200, Minn. R. 7017.2025]
5.396.15	Annual Calibration: The Permittee shall calibrate the pressure drop monitor at least once every 12 months and shall maintain a written record of the calibration and any action resulting from the calibration. [40 CFR 64.3, Minn. R. 7017.0200]
5.396.16	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the wet scrubber. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [40 CFR 64.3, Minn. R. 7017.0200]
5.396.17	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the wet scrubber not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [40 CFR 64.3, Minn. R. 7017.0200]
5.396.18	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded pressure drop is outside the required operating range; or - the recorded water flow rate is below the required operating range; or - the scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop to within the permitted range and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for each control device. [40 CFR 64.7(d), Minn. R. 7017.0200]

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5.396.19	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee shall calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time. The established Pressure Drop Range Limit shall be reset as follows: - Using the CPMS, measure and record the pressure drop every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average pressure drop for each individual test run. - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is below the minimum value of the established range, the Pressure Drop Limit shall be reset as the lowest 1-hour average pressure drop corresponding to any of the three test runs. Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [40 CFR 63.9622(f), Minn. R. 7017.2025, Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
5.396.20	Protocol for Resetting the Water Flow Rate Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Water Flow Rate Limit is to be reset, the reset shall be based on the water flow rate values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Flow Rate Limit shall be reset as follows: - Using the CPMS, measure and record the scrubber water flow rate every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average scrubber water flow rate for each individual test run. - if the 3-hour average water flow rate recorded during the test is above the established limit, it shall not be reset and the established value remains the Flow Rate Limit; or - if the 3-hour average water flow rate recorded during the test is lower than the current limit, the Flow Rate Limit shall be reset as the lowest 1-hour average water flow rate corresponding to any of the three test runs. The new Flow Rate Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [40 CFR 63.9622(f), Minn. R. 7017.2025, Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
5.396.21	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.396.22	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits

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	and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
5.396.23	Documentation of Need for Improved Monitoring: If the Permittee fails to achieve compliance with an emission limitation or standard for which the monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing pressure drop range or minimum water flow rate, the Permittee shall promptly notify the MPCA and, if necessary, submit a permit amendment application to address the necessary monitoring change. [40 CFR 64.7(e), Minn. R. 7017.0200]
5.396.24	As required by 40 CFR 64.9(a)(2), for the Semi-Annual Deviations Report required by this permit and/or the Notification of Deviations Endangering Human Health and the Environment required by this permit, as applicable, the Permittee shall include the following related to the monitoring identified as required by 40 CFR pt. 64: 1) Summary information on the number, duration, and cause of excursions or exceedances, as applicable, and the corrective action taken; and 2) Summary information on the number, duration, and cause for monitor downtime incidents. [40 CFR 64.9(a)(2), Minn. R. 7017.0200]
5.396.25	The Permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, and other supporting information required to be maintained. The Permittee may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements. [40 CFR 64.9(b), Minn. R. 7017.0200]
TREA 48	Step I Secondary Crusher Line 6 Scrubber
5.397.1	The Permittee shall vent emissions from EQUI 339 to TREA 48 whenever EQUI 339 operates, and operate and maintain TREA 48 at all times that any emissions are vented to TREA 48. The Permittee shall document periods of non-operation of the control equipment whenever EQUI 339 is operating. Note: TREA 238 will replace TREA 48. Prior to the startup and operation of TREA 238, the Permittee shall follow the requirements for TREA 48. After the startup and operation of TREA 238, TREA 48 shall be shut down, and the Permittee shall follow requirements for TREA 238 instead of TREA 48. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.397.2	If the Permittee replaces TREA 48, the replacement control must meet or exceed the control efficiency requirements of TREA 48 as well as comply with all other requirements of TREA 48. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.397.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 95.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.397.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 94.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.397.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 90.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R.

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	7007.0800, subp. 2(A) and (B)]
5.397.6	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9590(c); 40 CFR 63.9590(b)(1); 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (3); 40 CFR 63.9610(a); 40 CFR 63.9622(f); 40 CFR 63.9631(b); 40 CFR 63.9632(b)-(e); 40 CFR 63.9633; 40 CFR 63.9634(a), (e), & (j); 40 CFR 63.9636(a)(1) & (3); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.397.7	Pressure Drop $\geq$ 4.2 inches of water daily average (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.397.8	Water flow rate $\geq$ 21.3 gallons per minute daily average (Flow Rate Limit), unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.397.9	The Permittee shall calculate and record the daily average water flow rate at least once each operating day using the continuous monitor data. If the recorded flow rate is below the required limit, the emissions during that time shall be considered uncontrolled until the flow rate is once again above the required limit. The period of time for which the flow rate is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.397.10	The Permittee shall record the daily average pressure drop at least once each operating day using the continuous monitor data. If the recorded pressure drop is below the required limit, the emissions during that time shall be considered uncontrolled until the pressure drop is once again above the required limit. The period of time for which the pressure drop is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.397.11	Recordkeeping of Pressure Drop and Water Flow Rate: The Permittee shall maintain a continuous written record of the pressure drop and water flow rate readings. The permittee shall record the daily

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	average pressure drop reading and water flow rate reading and whether or not the observed value was within the range specified in this permit. Recorded values outside any range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subps. 4-5]
5.397.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded flow rate is below the required rate; - the recorded pressure drop is outside the required operating range; or - the scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop and/or water flow rate to within the permitted range(s), and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the Operation and Maintenance (O & M) Plan for the scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for each scrubber. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.397.13	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the wet scrubber. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.397.14	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the wet scrubber not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.397.15	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop and water flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation. [Minn. R. 7007.0800, subp. 4]
5.397.16	The Permittee shall calibrate or replace the pressure drop and flow rate monitors at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.397.17	The Permittee shall operate and maintain the scrubber in accordance with the O & M Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.397.18	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Pressure Drop Range Limit shall be reset as follows: - Using the CPMS, measure and record the pressure drop every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average pressure drop for each individual test run. - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is below the minimum value of the established range, the

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	Pressure Drop Limit shall be reset as the lowest 1-hour average pressure drop corresponding to any of the three test runs. Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B), Minn. R. 7017.2025]
5.397.19	Protocol for Resetting the Water Flow Rate Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Water Flow Rate Limit is to be reset, the reset shall be based on the water flow rate values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Flow Rate Limit shall be reset as follows: - Using the CPMS, measure and record the scrubber water flow rate every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average scrubber water flow rate for each individual test run. - if the 3-hour average water flow rate recorded during the test is above the established limit, it shall not be reset and the established value remains the Flow Rate Limit; or - if the 3-hour average water flow rate recorded during the test is lower than the current limit, the Flow Rate Limit shall be reset as the lowest 1-hour average water flow rate corresponding to any of the three test runs. The new Flow Rate Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.397.20	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
5.397.21	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit and Flow Rate Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
TREA 49	Step I Secondary Crusher Line 7 Scrubber
5.398.1	The Permittee shall vent emissions from EQUI 390 to TREA 49 whenever EQUI 390 operates, and operate and maintain TREA 49 at all times that any emissions are vented to TREA 49. The Permittee shall document periods of non-operation of the control equipment TREA 49 whenever EQUI 390 is operating. Note: TREA 238 will replace TREA 49. Prior to the startup and operation of TREA 238, the Permittee shall follow the requirements for TREA 49. After the startup and operation of TREA 238, TREA 49 shall be shut down, and the Permittee shall follow requirements for TREA 238 instead of TREA 49. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.398.2	If the Permittee replaces TREA 49, the replacement control must meet or exceed the control efficiency requirements of TREA 49 as well as comply with all other requirements of TREA 49. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable.

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	If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.398.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter $\geq$ 95.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.398.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron $\geq$ 94.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.398.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron $\geq$ 90.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.398.6	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9590(c); 40 CFR 63.9590(b)(1); 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (3); 40 CFR 63.9610(a); 40 CFR 63.9622(f); 40 CFR 63.9631(b); 40 CFR 63.9632(b)-(e); 40 CFR 63.9633; 40 CFR 63.9634(a), (e), & (j); 40 CFR 63.9636(a)(1) & (3); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.398.7	Pressure Drop $\geq$ 4.2 inches of water daily average (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.398.8	Water flow rate $\geq$ 21.3 gallons per minute daily average (Flow Rate Limit), unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.398.9	The Permittee shall calculate and record the daily average water flow rate at least once each operating day using the continuous monitor data. If the recorded flow rate is below the required limit,

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	the emissions during that time shall be considered uncontrolled until the flow rate is once again above the required limit. The period of time for which the flow rate is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.398.10	The Permittee shall record the daily average pressure drop at least once each operating day using the continuous monitor data. If the recorded pressure drop is below the required limit, the emissions during that time shall be considered uncontrolled until the pressure drop is once again above the required limit. The period of time for which the pressure drop is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.398.11	Recordkeeping of Pressure Drop and Water Flow Rate: The Permittee shall maintain a continuous written record of the pressure drop and water flow rate readings. The permittee shall record the daily average pressure drop reading and water flow rate reading and whether or not the observed value was within the range specified in this permit. Recorded values outside any range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subps. 4-5]
5.398.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded flow rate is below the required rate; - the recorded pressure drop is outside the required operating range; or - the scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop and/or water flow rate to within the permitted range(s), and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the Operation and Maintenance (O & M) Plan for the scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for each scrubber. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.398.13	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the wet scrubber. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.398.14	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the wet scrubber not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.398.15	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop and water flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation. [Minn. R. 7007.0800, subp. 4]
5.398.16	The Permittee shall calibrate or replace the pressure drop and flow rate monitors at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.398.17	The Permittee shall operate and maintain the scrubber in accordance with the O & M Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.398.18	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance

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	testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Pressure Drop Range Limit shall be reset as follows: - Using the CPMS, measure and record the pressure drop every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average pressure drop for each individual test run. - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is below the minimum value of the established range, the Pressure Drop Limit shall be reset as the lowest 1-hour average pressure drop corresponding to any of the three test runs. Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B), Minn. R. 7017.2025]
5.398.19	Protocol for Resetting the Water Flow Rate Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Water Flow Rate Limit is to be reset, the reset shall be based on the water flow rate values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Flow Rate Limit shall be reset as follows: - Using the CPMS, measure and record the scrubber water flow rate every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average scrubber water flow rate for each individual test run. - if the 3-hour average water flow rate recorded during the test is above the established limit, it shall not be reset and the established value remains the Flow Rate Limit; or - if the 3-hour average water flow rate recorded during the test is lower than the current limit, the Flow Rate Limit shall be reset as the lowest 1-hour average water flow rate corresponding to any of the three test runs. The new Flow Rate Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.398.20	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
5.398.21	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit and Flow Rate Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
TREA 50	Step I Secondary Crusher Line 8 Scrubber
5.399.1	The Permittee shall vent emissions from EQUI 340 to TREA 50 whenever EQUI 340 operates, and

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	operate and maintain TREA 50 at all times that any emissions are vented to TREA 50. The Permittee shall document periods of non-operation of the control equipment TREA 50 whenever EQUI 340 is operating. Note: TREA 240 will replace TREA 50. Prior to the startup and operation of TREA 240, the Permittee shall follow the requirements for TREA 50. After the startup and operation of TREA 240, TREA 50 shall be shut down, and the Permittee shall follow requirements for TREA 240 instead of TREA 50. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.399.2	If the Permittee replaces TREA 50, the replacement control must meet or exceed the control efficiency requirements of TREA 50 as well as comply with all other requirements of TREA 50. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.399.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 95 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.399.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 94.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.399.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 90 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.399.6	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9590(c); 40 CFR 63.9590(b)(1); 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (3); 40 CFR 63.9610(a); 40 CFR 63.9622(f); 40 CFR 63.9631(b); 40 CFR 63.9632(b)-(e); 40 CFR 63.9633; 40 CFR 63.9634(a), (e), & (j); 40 CFR 63.9636(a)(1) & (3); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application

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	for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.399.7	Pressure Drop $\geq$ 4.2 inches of water daily average (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.399.8	Water flow rate $\geq$ 21.3 gallons per minute daily average (Flow Rate Limit), unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. The Permittee shall record the water flow rate at least once every 24 hours. If the recorded flow rate is below the required limit, the emissions during that time shall be considered uncontrolled until the flow rate is once again above the required limit. The period of time for which the flow rate is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.399.9	The Permittee shall calculate and record the daily average water flow rate at least once each operating day using the continuous monitor data. If the recorded flow rate is below the required limit, the emissions during that time shall be considered uncontrolled until the flow rate is once again above the required limit. The period of time for which the flow rate is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.399.10	The Permittee shall record the daily average pressure drop at least once each operating day using the continuous monitor data. If the recorded pressure drop is below the required limit, the emissions during that time shall be considered uncontrolled until the pressure drop is once again above the required limit. The period of time for which the pressure drop is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.399.11	Recordkeeping of Pressure Drop and Water Flow Rate: The Permittee shall maintain a continuous written record of the pressure drop and water flow rate readings. The permittee shall record the daily average pressure drop reading and water flow rate reading and whether or not the observed value was within the range specified in this permit. Recorded values outside any range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subs. 4-5]
5.399.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded flow rate is below the required rate; - the recorded pressure drop is outside the required operating range; or - the scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop and/or water flow rate to within the permitted range(s), and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the Operation and Maintenance (O & M) Plan for the scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for each scrubber. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.399.13	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the wet scrubber. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subs. 4-5]

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5.399.14	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the wet scrubber not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.399.15	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop and water flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation. [Minn. R. 7007.0800, subp. 4]
5.399.16	The Permittee shall calibrate or replace the pressure drop and flow rate monitors at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.399.17	The Permittee shall operate and maintain the scrubber in accordance with the O & M Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.399.18	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Pressure Drop Range Limit shall be reset as follows: - Using the CPMS, measure and record the pressure drop every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average pressure drop for each individual test run. - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is below the minimum value of the established range, the Pressure Drop Limit shall be reset as the lowest 1-hour average pressure drop corresponding to any of the three test runs. Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B), Minn. R. 7017.2025]
5.399.19	Protocol for Resetting the Water Flow Rate Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Water Flow Rate Limit is to be reset, the reset shall be based on the water flow rate values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Flow Rate Limit shall be reset as follows: - Using the CPMS, measure and record the scrubber water flow rate every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average scrubber water flow rate for each individual test run. - if the 3-hour average water flow rate recorded during the test is above the established limit, it shall not be reset and the established value remains the Flow Rate Limit; or

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	- if the 3-hour average water flow rate recorded during the test is lower than the current limit, the Flow Rate Limit shall be reset as the lowest 1-hour average water flow rate corresponding to any of the three test runs. The new Flow Rate Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.399.20	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
5.399.21	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit and Flow Rate Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
TREA 51	Step I Secondary Crusher Line 9 Scrubber
5.400.1	The Permittee shall vent emissions from EQUI 341 to TREA 51 whenever EQUI 341 operates, and operate and maintain TREA 51 at all times that any emissions are vented to TREA 51. The Permittee shall document periods of non-operation of the control equipment TREA 51 whenever EQUI 341 is operating. Note: TREA 241 will replace TREA 51. Prior to the startup and operation of TREA 241, the Permittee shall follow the requirements for TREA 51. After the startup and operation of TREA 241, TREA 51 shall be shut down, and the Permittee shall follow requirements for TREA 241 instead of TREA 51. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.400.2	If the Permittee replaces TREA 51, the replacement control must meet or exceed the control efficiency requirements of TREA 51 as well as comply with all other requirements of TREA 51. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.400.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 95 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.400.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 94.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.400.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 90.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.400.6	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9590(c); 40 CFR 63.9590(b)(1); 40 CFR 63.9600(a) & (b);

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	40 CFR 63.9600(b)(1) & (3); 40 CFR 63.9610(a); 40 CFR 63.9622(f); 40 CFR 63.9631(b); 40 CFR 63.9632(b)-(e); 40 CFR 63.9633; 40 CFR 63.9634(a), (e), & (j); 40 CFR 63.9636(a)(1) & (3); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.400.7	Pressure Drop $\geq$ 4.2 inches of water daily average (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.400.8	Water flow rate $\geq$ 21.3 gallons per minute daily average (Flow Rate Limit), unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.400.9	The Permittee shall calculate and record the daily average water flow rate at least once each operating day using the continuous monitor data. If the recorded flow rate is below the required limit, the emissions during that time shall be considered uncontrolled until the flow rate is once again above the required limit. The period of time for which the flow rate is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.400.10	The Permittee shall record the daily average pressure drop at least once each operating day using the continuous monitor data. If the recorded pressure drop is below the required limit, the emissions during that time shall be considered uncontrolled until the pressure drop is once again above the required limit. The period of time for which the pressure drop is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.400.11	Recordkeeping of Pressure Drop and Water Flow Rate: The Permittee shall maintain a continuous written record of the pressure drop and water flow rate readings. The permittee shall record the daily average pressure drop reading and water flow rate reading and whether or not the observed value was within the range specified in this permit. Recorded values outside any range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subps. 4-5]
5.400.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded flow rate is below the required rate;

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	- the recorded pressure drop is outside the required operating range; or - the scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop and/or water flow rate to within the permitted range(s), and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the Operation and Maintenance (O & M) Plan for the scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for each scrubber. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.400.13	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the wet scrubber. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.400.14	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the wet scrubber not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.400.15	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop and water flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation. [Minn. R. 7007.0800, subp. 4]
5.400.16	The Permittee shall calibrate or replace the pressure drop and flow rate monitors at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.400.17	The Permittee shall operate and maintain the scrubber in accordance with the O & M Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.400.18	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Pressure Drop Range Limit shall be reset as follows: - Using the CPMS, measure and record the pressure drop every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average pressure drop for each individual test run. - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is below the minimum value of the established range, the Pressure Drop Limit shall be reset as the lowest 1-hour average pressure drop corresponding to any of the three test runs. Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800,

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	subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B), Minn. R. 7017.2025]
5.400.19	Protocol for Resetting the Water Flow Rate Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Water Flow Rate Limit is to be reset, the reset shall be based on the water flow rate values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Flow Rate Limit shall be reset as follows: - Using the CPMS, measure and record the scrubber water flow rate every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average scrubber water flow rate for each individual test run. - if the 3-hour average water flow rate recorded during the test is above the established limit, it shall not be reset and the established value remains the Flow Rate Limit; or - if the 3-hour average water flow rate recorded during the test is lower than the current limit, the Flow Rate Limit shall be reset as the lowest 1-hour average water flow rate corresponding to any of the three test runs. The new Flow Rate Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.400.20	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
5.400.21	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit and Flow Rate Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
TREA 52	Step I Secondary Crusher Line 10 Scrubber
5.401.1	The Permittee shall vent emissions from EQUI 5 to TREA 52 whenever EQUI 5 operates, and operate and maintain TREA 52 at all times that any emissions are vented to TREA 52. The Permittee shall document periods of non-operation of the control equipment TREA 52 whenever EQUI 5 is operating. Note: TREA 242 will replace TREA 52. Prior to the startup and operation of TREA 242, the Permittee shall follow the requirements for TREA 52. After the startup and operation of TREA 242, TREA 52 shall be shut down, and the Permittee shall follow requirements for TREA 242 instead of TREA 52. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.401.2	If the Permittee replaces TREA 52, the replacement control must meet or exceed the control efficiency requirements of TREA 52 as well as comply with all other requirements of TREA 52. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.401.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 95.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]

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5.401.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron $\geq$ 94.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.401.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron $\geq$ 90.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.401.6	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9590(c); 40 CFR 63.9590(b)(1); 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (3); 40 CFR 63.9610(a); 40 CFR 63.9622(f); 40 CFR 63.9631(b); 40 CFR 63.9632(b)-(e); 40 CFR 63.9633; 40 CFR 63.9634(a), (e), & (j); 40 CFR 63.9636(a)(1) & (3); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.401.7	Pressure Drop $\geq$ 4.2 inches of water daily average (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.401.8	Water flow rate $\geq$ 21.3 gallons per minute daily average (Flow Rate Limit), unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.401.9	The Permittee shall calculate and record the daily average water flow rate at least once each operating day using the continuous monitor data. If the recorded flow rate is below the required limit, the emissions during that time shall be considered uncontrolled until the flow rate is once again above the required limit. The period of time for which the flow rate is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.401.10	The Permittee shall record the daily average pressure drop at least once each operating day using the continuous monitor data. If the recorded pressure drop is below the required limit, the emissions during that time shall be considered uncontrolled until the pressure drop is once again above the

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	required limit. The period of time for which the pressure drop is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.401.11	Recordkeeping of Pressure Drop and Water Flow Rate: The Permittee shall maintain a continuous written record of the pressure drop and water flow rate readings. The permittee shall record the daily average pressure drop reading and water flow rate reading and whether or not the observed value was within the range specified in this permit. Recorded values outside any range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subps. 4-5]
5.401.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded flow rate is below the required rate; - the recorded pressure drop is outside the required operating range; or - the scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop and/or water flow rate to within the permitted range(s), and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the Operation and Maintenance (O & M) Plan for the scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for each scrubber. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.401.13	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the wet scrubber. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.401.14	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the wet scrubber not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.401.15	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop and water flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation. [Minn. R. 7007.0800, subp. 4]
5.401.16	The Permittee shall calibrate or replace the pressure drop and flow rate monitors at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.401.17	The Permittee shall operate and maintain the scrubber in accordance with the O & M Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.401.18	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Pressure Drop Range Limit shall be reset as follows: - Using the CPMS, measure and record the pressure drop every 15 minutes during each run of the

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	particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average pressure drop for each individual test run. - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is below the minimum value of the established range, the Pressure Drop Limit shall be reset as the lowest 1-hour average pressure drop corresponding to any of the three test runs. Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B), Minn. R. 7017.2025]
5.401.19	Protocol for Resetting the Water Flow Rate Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Water Flow Rate Limit is to be reset, the reset shall be based on the water flow rate values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Flow Rate Limit shall be reset as follows: - Using the CPMS, measure and record the scrubber water flow rate every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average scrubber water flow rate for each individual test run. - if the 3-hour average water flow rate recorded during the test is above the established limit, it shall not be reset and the established value remains the Flow Rate Limit; or - if the 3-hour average water flow rate recorded during the test is lower than the current limit, the Flow Rate Limit shall be reset as the lowest 1-hour average water flow rate corresponding to any of the three test runs. The new Flow Rate Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.401.20	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
5.401.21	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit and Flow Rate Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
TREA 53	Step I Conveyor Transfer 008 to 009 Scrubber
5.402.1	The Permittee shall vent emissions from EQUI 6, EQUI 7, and EQUI 342 to TREA 53 whenever EQUI 6, EQUI 7, and EQUI 342 operates, and operate and maintain TREA 53 at all times that any emissions are vented to TREA 53. The Permittee shall document periods of non-operation of the control equipment TREA 53 whenever EQUI 6, EQUI 7, and EQUI 342 are operating. Note: TREA 237 will replace TREA 53. Prior to the startup and operation of TREA 237, the Permittee shall follow the requirements for TREA 53. After the startup and operation of TREA 237, TREA 53 shall be shut down, and the Permittee shall follow requirements for TREA 237 instead of TREA 53. [Minn. R.

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	7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.402.2	If the Permittee replaces TREA 53, the replacement control must meet or exceed the control efficiency requirements of TREA 53 as well as comply with all other requirements of TREA 53. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.402.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter $\geq$ 95.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.402.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron $\geq$ 94.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.402.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron $\geq$ 90.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.402.6	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9590(c); 40 CFR 63.9590(b)(1); 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (3); 40 CFR 63.9610(a); 40 CFR 63.9622(f); 40 CFR 63.9631(b); 40 CFR 63.9632(b)-(e); 40 CFR 63.9633; 40 CFR 63.9634(a), (e), & (j); 40 CFR 63.9636(a)(1) & (3); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.402.7	Pressure Drop $\geq$ 3.9 inches of water daily average (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]

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5.402.8	Water flow rate $\geq$ 13.9 gallons per minute daily average (Flow Rate Limit), unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.402.9	The Permittee shall calculate and record the daily average water flow rate at least once each operating day using the continuous monitor data. If the recorded flow rate is below the required limit, the emissions during that time shall be considered uncontrolled until the flow rate is once again above the required limit. The period of time for which the flow rate is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.402.10	The Permittee shall record the daily average pressure drop at least once each operating day using the continuous monitor data. If the recorded pressure drop is below the required limit, the emissions during that time shall be considered uncontrolled until the pressure drop is once again above the required limit. The period of time for which the pressure drop is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.402.11	Recordkeeping of Pressure Drop and Water Flow Rate: The Permittee shall maintain a continuous written record of the pressure drop and water flow rate readings. The permittee shall record the daily average pressure drop reading and water flow rate reading and whether or not the observed value was within the range specified in this permit. Recorded values outside any range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subps. 4-5]
5.402.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded flow rate is below the required rate; - the recorded pressure drop is outside the required operating range; or - the scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop and/or water flow rate to within the permitted range(s), and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the Operation and Maintenance (O & M) Plan for the scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for each scrubber. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.402.13	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the wet scrubber. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.402.14	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the wet scrubber not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.402.15	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop and water flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation. [Minn. R. 7007.0800, subp. 4]
5.402.16	The Permittee shall calibrate or replace the pressure drop and flow rate monitors at least once every

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	12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.402.17	The Permittee shall operate and maintain the scrubber in accordance with the O & M Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.402.18	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Pressure Drop Range Limit shall be reset as follows: - Using the CPMS, measure and record the pressure drop every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average pressure drop for each individual test run. - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is below the minimum value of the established range, the Pressure Drop Limit shall be reset as the lowest 1-hour average pressure drop corresponding to any of the three test runs. Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B), Minn. R. 7017.2025]
5.402.19	Protocol for Resetting the Water Flow Rate Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Water Flow Rate Limit is to be reset, the reset shall be based on the water flow rate values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Flow Rate Limit shall be reset as follows: - Using the CPMS, measure and record the scrubber water flow rate every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average scrubber water flow rate for each individual test run. - if the 3-hour average water flow rate recorded during the test is above the established limit, it shall not be reset and the established value remains the Flow Rate Limit; or - if the 3-hour average water flow rate recorded during the test is lower than the current limit, the Flow Rate Limit shall be reset as the lowest 1-hour average water flow rate corresponding to any of the three test runs. The new Flow Rate Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.402.20	Protocol for Resetting the Flow Rate Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Flow Rate Limit is to be reset, the reset shall be based on the water flow rate values recorded during the most recent MPCA-approved performance test where compliance was demonstrated.

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	The established Flow Rate Limit shall be reset as follows: - Using the CPMS, measure and record the pressure drop every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average pressure drop for each individual test run. - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is below the minimum value of the established range, the Pressure Drop Limit shall be reset as the lowest 1-hour average pressure drop corresponding to any of the three test runs. The new Flow Rate Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B), Minn. R. 7017.2025]
5.402.21	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
5.402.22	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit and Flow Rate Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
TREA 54	Secondary Storage Bin 070-02 Scrubber
5.403.1	The Permittee shall vent emissions from EQUI 392 to TREA 54 whenever EQUI 392 operates, and operate and maintain TREA 54 at all times that any emissions are vented to TREA 54. The Permittee shall document periods of non-operation of the control equipment TREA 54 whenever EQUI 392 is operating. Note: TREA 234 will replace TREA 54. Prior to the startup and operation of TREA 234, the Permittee shall follow the requirements for TREA 54. After the startup and operation of TREA 234, TREA 54 shall be shut down, and the Permittee shall follow requirements for TREA 234 instead of TREA 54. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.403.2	If the Permittee replaces TREA 54, the replacement control must meet or exceed the control efficiency requirements of TREA 54 as well as comply with all other requirements of TREA 54. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.403.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 95.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.403.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 94.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.403.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency

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	for PM < 2.5 micron $\geq$ 90.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.403.6	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9590(c); 40 CFR 63.9590(b)(1); 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (3); 40 CFR 63.9610(a); 40 CFR 63.9622(f); 40 CFR 63.9631(b); 40 CFR 63.9632(b)-(e); 40 CFR 63.9633; 40 CFR 63.9634(a), (e), & (j); 40 CFR 63.9636(a)(1) & (3); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.403.7	Pressure Drop $\geq$ 3.0 inches of water daily average (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.403.8	Water flow rate $\geq$ 14.5 gallons per minute daily average (Flow Rate Limit), unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.403.9	The Permittee shall calculate and record the daily average water flow rate at least once each operating day using the continuous monitor data. If the recorded flow rate is below the required limit, the emissions during that time shall be considered uncontrolled until the flow rate is once again above the required limit. The period of time for which the flow rate is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.403.10	The Permittee shall record the daily average pressure drop at least once each operating day using the continuous monitor data. If the recorded pressure drop is below the required limit, the emissions during that time shall be considered uncontrolled until the pressure drop is once again above the required limit. The period of time for which the pressure drop is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.403.11	Recordkeeping of Pressure Drop and Water Flow Rate: The Permittee shall maintain a continuous

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	written record of the pressure drop and water flow rate readings. The permittee shall record the daily average pressure drop reading and water flow rate reading and whether or not the observed value was within the range specified in this permit. Recorded values outside any range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subps. 4-5]
5.403.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded flow rate is below the required rate; - the recorded pressure drop is outside the required operating range; or - the scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop and/or water flow rate to within the permitted range(s), and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the Operation and Maintenance (O & M) Plan for the scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for each scrubber. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.403.13	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the wet scrubber. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.403.14	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the wet scrubber not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.403.15	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop and water flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation. [Minn. R. 7007.0800, subp. 4]
5.403.16	The Permittee shall calibrate or replace the pressure drop and flow rate monitors at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.403.17	The Permittee shall operate and maintain the scrubber in accordance with the O & M Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.403.18	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Pressure Drop Range Limit shall be reset as follows: - Using the CPMS, measure and record the pressure drop every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average pressure drop for each individual test run. - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or

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	- if the 3-hour average pressure drop is below the minimum value of the established range, the Pressure Drop Limit shall be reset as the lowest 1-hour average pressure drop corresponding to any of the three test runs. Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B), Minn. R. 7017.2025]
5.403.19	Protocol for Resetting the Water Flow Rate Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Water Flow Rate Limit is to be reset, the reset shall be based on the water flow rate values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Flow Rate Limit shall be reset as follows: - Using the CPMS, measure and record the scrubber water flow rate every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average scrubber water flow rate for each individual test run. - if the 3-hour average water flow rate recorded during the test is above the established limit, it shall not be reset and the established value remains the Flow Rate Limit; or - if the 3-hour average water flow rate recorded during the test is lower than the current limit, the Flow Rate Limit shall be reset as the lowest 1-hour average water flow rate corresponding to any of the three test runs. The new Flow Rate Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.403.20	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
5.403.21	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit and Flow Rate Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
TREA 57	Step III Secondary Crusher Line 11 Scrubber
5.404.1	The Permittee shall vent emissions from EQUI 9 to TREA 57 whenever EQUI 9 operates, and operate and maintain TREA 57 at all times that any emissions are vented to TREA 57. The Permittee shall document periods of non-operation of the control equipment TREA 57 whenever EQUI 9 is operating. Note: TREA 245 will replace TREA 57. Prior to the startup and operation of TREA 245, the Permittee shall follow the requirements for TREA 57. After the startup and operation of TREA 245, TREA 57 shall be shut down, and the Permittee shall follow requirements for TREA 245 instead of TREA 57. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.404.2	If the Permittee replaces TREA 57, the replacement control must meet or exceed the control efficiency requirements of TREA 57 as well as comply with all other requirements of TREA 57. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable.

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	If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.404.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 95.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.404.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 94.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.404.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 90.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.404.6	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9590(c); 40 CFR 63.9590(b)(1); 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (3); 40 CFR 63.9610(a); 40 CFR 63.9622(f); 40 CFR 63.9631(b); 40 CFR 63.9632(b)-(e); 40 CFR 63.9633; 40 CFR 63.9634(a), (e), & (j); 40 CFR 63.9636(a)(1) & (3); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.404.7	Pressure Drop ≥ 4.4 inches of water daily average (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.404.8	Water flow rate ≥ 24.5 gallons per minute daily average (Flow Rate Limit), unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.404.9	The Permittee shall calculate and record the daily average water flow rate at least once each operating day using the continuous monitor data. If the recorded flow rate is below the required limit, the emissions during that time shall be considered uncontrolled until the flow rate is once again

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	above the required limit. The period of time for which the flow rate is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.404.10	The Permittee shall record the daily average pressure drop at least once each operating day using the continuous monitor data. If the recorded pressure drop is below the required limit, the emissions during that time shall be considered uncontrolled until the pressure drop is once again above the required limit. The period of time for which the pressure drop is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.404.11	Recordkeeping of Pressure Drop and Water Flow Rate: The Permittee shall maintain a continuous written record of the pressure drop and water flow rate readings. The permittee shall record the daily average pressure drop reading and water flow rate reading and whether or not the observed value was within the range specified in this permit. Recorded values outside any range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subps. 4-5]
5.404.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded flow rate is below the required rate; - the recorded pressure drop is outside the required operating range; or - the scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop and/or water flow rate to within the permitted range(s), and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the Operation and Maintenance (O & M) Plan for the scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for each scrubber. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.404.13	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the wet scrubber. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.404.14	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the wet scrubber not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.404.15	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop and water flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation. [Minn. R. 7007.0800, subp. 4]
5.404.16	The Permittee shall calibrate or replace the pressure drop and flow rate monitors at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.404.17	The Permittee shall operate and maintain the scrubber in accordance with the O & M Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.404.18	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established

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	Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Pressure Drop Range Limit shall be reset as follows: - Using the CPMS, measure and record the pressure drop every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average pressure drop for each individual test run. - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is below the minimum value of the established range, the Pressure Drop Limit shall be reset as the lowest 1-hour average pressure drop corresponding to any of the three test runs. Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B), Minn. R. 7017.2025]
5.404.19	Protocol for Resetting the Water Flow Rate Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Water Flow Rate Limit is to be reset, the reset shall be based on the water flow rate values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Flow Rate Limit shall be reset as follows: - Using the CPMS, measure and record the scrubber water flow rate every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average scrubber water flow rate for each individual test run. - if the 3-hour average water flow rate recorded during the test is above the established limit, it shall not be reset and the established value remains the Flow Rate Limit; or - if the 3-hour average water flow rate recorded during the test is lower than the current limit, the Flow Rate Limit shall be reset as the lowest 1-hour average water flow rate corresponding to any of the three test runs. The new Flow Rate Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.404.20	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
5.404.21	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit and Flow Rate Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
TREA 58	Step III Secondary Crusher Line 12 Scrubber
5.405.1	The Permittee shall vent emissions from EQUI 285 to TREA 58 whenever EQUI 285 operates, and operate and maintain TREA 58 at all times that any emissions are vented to TREA 58. The Permittee

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	shall document periods of non-operation of the control equipment TREA 58 whenever EQUI 285 is operating. Note: TREA 246 will replace TREA 58. Prior to the startup and operation of TREA 246, the Permittee shall follow the requirements for TREA 58. After the startup and operation of TREA 246, TREA 58 shall be shut down, and the Permittee shall follow requirements for TREA 246 instead of TREA 58. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.405.2	If the Permittee replaces TREA 58, the replacement control must meet or exceed the control efficiency requirements of TREA 58 as well as comply with all other requirements of TREA 58. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.405.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 95.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.405.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 94.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.405.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 90.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.405.6	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9590(c); 40 CFR 63.9590(b)(1); 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (3); 40 CFR 63.9610(a); 40 CFR 63.9622(f); 40 CFR 63.9631(b); 40 CFR 63.9632(b)-(e); 40 CFR 63.9633; 40 CFR 63.9634(a), (e), & (j); 40 CFR 63.9636(a)(1) & (3); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to

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	Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.405.7	Pressure Drop $\geq$ 4.4 inches of water daily average (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, and 40 CFR 63.9622(f) as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.405.8	Water flow rate $\geq$ 24.5 gallons per minute daily average (Flow Rate Limit), unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.405.9	The Permittee shall calculate and record the daily average water flow rate at least once each operating day using the continuous monitor data. If the recorded flow rate is below the required limit, the emissions during that time shall be considered uncontrolled until the flow rate is once again above the required limit. The period of time for which the flow rate is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.405.10	The Permittee shall record the daily average pressure drop at least once each operating day using the continuous monitor data. If the recorded pressure drop is below the required limit, the emissions during that time shall be considered uncontrolled until the pressure drop is once again above the required limit. The period of time for which the pressure drop is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.405.11	Recordkeeping of Pressure Drop and Water Flow Rate: The Permittee shall maintain a continuous written record of the pressure drop and water flow rate readings. The permittee shall record the daily average pressure drop reading and water flow rate reading and whether or not the observed value was within the range specified in this permit. Recorded values outside any range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subps. 4-5]
5.405.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded flow rate is below the required rate; - the recorded pressure drop is outside the required operating range; or - the scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop and/or water flow rate to within the permitted range(s), and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the Operation and Maintenance (O & M) Plan for the scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for each scrubber. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.405.13	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the wet scrubber. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.405.14	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the wet scrubber not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]

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5.405.15	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop and water flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation. [Minn. R. 7007.0800, subp. 4]
5.405.16	The Permittee shall calibrate or replace the pressure drop and flow rate monitors at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.405.17	The Permittee shall operate and maintain the scrubber in accordance with the O & M Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.405.18	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Pressure Drop Range Limit shall be reset as follows: - Using the CPMS, measure and record the pressure drop every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average pressure drop for each individual test run. - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is below the minimum value of the established range, the Pressure Drop Limit shall be reset as the lowest 1-hour average pressure drop corresponding to any of the three test runs. Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B), Minn. R. 7017.2025]
5.405.19	Protocol for Resetting the Water Flow Rate Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Water Flow Rate Limit is to be reset, the reset shall be based on the water flow rate values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Flow Rate Limit shall be reset as follows: - Using the CPMS, measure and record the scrubber water flow rate every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average scrubber water flow rate for each individual test run. - if the 3-hour average water flow rate recorded during the test is above the established limit, it shall not be reset and the established value remains the Flow Rate Limit; or - if the 3-hour average water flow rate recorded during the test is lower than the current limit, the Flow Rate Limit shall be reset as the lowest 1-hour average water flow rate corresponding to any of the three test runs. The new Flow Rate Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended.

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	[Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.405.20	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
5.405.21	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit and Flow Rate Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
TREA 59	Step III Secondary Crusher Line 13 Scrubber
5.406.1	The Permittee shall vent emissions from TREA 286 to TEA 59 whenever EQUI 286 operates, and operate and maintain TREA 59 at all times that any emissions are vented to TREA 59. The Permittee shall document periods of non-operation of the control equipment TREA 59 whenever EQUI 286 is operating. Note: TREA 247 will replace TREA 59. Prior to the startup and operation of TREA 247, the Permittee shall follow the requirements for TREA 59. After the startup and operation of TREA 247, TREA 59 shall be shut down, and the Permittee shall follow requirements for TREA 247 instead of TREA 59. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.406.2	If the Permittee replaces TREA 59, the replacement control must meet or exceed the control efficiency requirements of TREA 59 as well as comply with all other requirements of TREA 59. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.406.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 95.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.406.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 94.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.406.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 90.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.406.6	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9590(c); 40 CFR 63.9590(b)(1); 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (3); 40 CFR 63.9610(a); 40 CFR 63.9622(f); 40 CFR 63.9631(b); 40 CFR 63.9632(b)-(e); 40 CFR 63.9633;

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	40 CFR 63.9634(a), (e), & (j); 40 CFR 63.9636(a)(1) & (3); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.406.7	Pressure Drop $\geq$ 4.4 inches of water daily average (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.406.8	Water flow rate $\geq$ 24.5 gallons per minute daily average (Flow Rate Limit), unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3, and 40 CFR 63.9622(f), as detailed below. The Permittee shall record the water flow rate at least once every 24 hours. If the recorded flow rate is below the required limit, the emissions during that time shall be considered uncontrolled until the flow rate is once again above the required limit. The period of time for which the flow rate is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.406.9	The Permittee shall calculate and record the daily average water flow rate at least once each operating day using the continuous monitor data. If the recorded flow rate is below the required limit, the emissions during that time shall be considered uncontrolled until the flow rate is once again above the required limit. The period of time for which the flow rate is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.406.10	The Permittee shall record the daily average pressure drop at least once each operating day using the continuous monitor data. If the recorded pressure drop is below the required limit, the emissions during that time shall be considered uncontrolled until the pressure drop is once again above the required limit. The period of time for which the pressure drop is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.406.11	Recordkeeping of Pressure Drop and Water Flow Rate: The Permittee shall maintain a continuous written record of the pressure drop and water flow rate readings. The permittee shall record the daily average pressure drop reading and water flow rate reading and whether or not the observed value was within the range specified in this permit. Recorded values outside any range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subs. 4-5]
5.406.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded flow rate is below the required rate; - the recorded pressure drop is outside the required operating range; or

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	- the scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop and/or water flow rate to within the permitted range(s), and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the Operation and Maintenance (O & M) Plan for the scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for each scrubber. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.406.13	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the wet scrubber. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.406.14	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the wet scrubber not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.406.15	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop and water flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation. [Minn. R. 7007.0800, subp. 4]
5.406.16	The Permittee shall calibrate or replace the pressure drop and flow rate monitors at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.406.17	The Permittee shall operate and maintain the scrubber in accordance with the O & M Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.406.18	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Pressure Drop Range Limit shall be reset as follows: - Using the CPMS, measure and record the pressure drop every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average pressure drop for each individual test run. - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is below the minimum value of the established range, the Pressure Drop Limit shall be reset as the lowest 1-hour average pressure drop corresponding to any of the three test runs. Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B), Minn. R. 7017.2025]

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5.406.19	Protocol for Resetting the Water Flow Rate Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Water Flow Rate Limit is to be reset, the reset shall be based on the water flow rate values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Flow Rate Limit shall be reset as follows: - Using the CPMS, measure and record the scrubber water flow rate every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average scrubber water flow rate for each individual test run. - if the 3-hour average water flow rate recorded during the test is above the established limit, it shall not be reset and the established value remains the Flow Rate Limit; or - if the 3-hour average water flow rate recorded during the test is lower than the current limit, the Flow Rate Limit shall be reset as the lowest 1-hour average water flow rate corresponding to any of the three test runs. The new Flow Rate Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.406.20	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
5.406.21	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit and Flow Rate Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
TREA 62	Conveyor Transfer 001-070 Bin Scrubber
5.407.1	The Permittee shall vent emissions from EQUI 11 to TREA 62 whenever EQUI 11 operates, and operate and maintain TREA 62 at all times that any emissions are vented to TREA 62. The Permittee shall document periods of non-operation of the control equipment TREA 62 whenever EQUI 11 is operating. Note: TREA 265 will replace TREA 62. Prior to the startup and operation of TREA 265, the Permittee shall follow the requirements for TREA 62. After the startup and operation of TREA 265, TREA 62 shall be shut down, and the Permittee shall follow requirements for TREA 265 instead of TREA 62. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.407.2	If the Permittee replaces TREA 62, the replacement control must meet or exceed the control efficiency requirements of TREA 62 as well as comply with all other requirements of TREA 62. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.407.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 95.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]

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5.407.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron $\geq$ 94.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.407.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron $\geq$ 90.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.407.6	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9590(c); 40 CFR 63.9590(b)(1); 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (3); 40 CFR 63.9610(a); 40 CFR 63.9622(f); 40 CFR 63.9631(b); 40 CFR 63.9632(b)-(e); 40 CFR 63.9633; 40 CFR 63.9634(a), (e), & (j); 40 CFR 63.9636(a)(1) & (3); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.407.7	Pressure Drop $\geq$ 3.9 inches of water daily average (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.407.8	Water flow rate $\geq$ 13.9 gallons per minute daily average (Flow Rate Limit), unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.407.9	The Permittee shall calculate and record the daily average water flow rate at least once each operating day using the continuous monitor data. If the recorded flow rate is below the required limit, the emissions during that time shall be considered uncontrolled until the flow rate is once again above the required limit. The period of time for which the flow rate is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.407.10	The Permittee shall record the daily average pressure drop at least once each operating day using the continuous monitor data. If the recorded pressure drop is below the required limit, the emissions during that time shall be considered uncontrolled until the pressure drop is once again above the

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	required limit. The period of time for which the pressure drop is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.407.11	Recordkeeping of Pressure Drop and Water Flow Rate: The Permittee shall maintain a continuous written record of the pressure drop and water flow rate readings. The permittee shall record the daily average pressure drop reading and water flow rate reading and whether or not the observed value was within the range specified in this permit. Recorded values outside any range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subps. 4-5]
5.407.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded flow rate is below the required rate; - the recorded pressure drop is outside the required operating range; or - the scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop and/or water flow rate to within the permitted range(s), and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the Operation and Maintenance (O & M) Plan for the scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for each scrubber. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.407.13	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the wet scrubber. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.407.14	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the wet scrubber not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.407.15	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop and water flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation. [Minn. R. 7007.0800, subp. 4]
5.407.16	The Permittee shall calibrate or replace the pressure drop and flow rate monitors at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.407.17	The Permittee shall operate and maintain the scrubber in accordance with the O & M Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.407.18	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Pressure Drop Range Limit shall be reset as follows: - Using the CPMS, measure and record the pressure drop every 15 minutes during each run of the

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	particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average pressure drop for each individual test run. - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is below the minimum value of the established range, the Pressure Drop Limit shall be reset as the lowest 1-hour average pressure drop corresponding to any of the three test runs. Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B), Minn. R. 7017.2025]
5.407.19	Protocol for Resetting the Water Flow Rate Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Water Flow Rate Limit is to be reset, the reset shall be based on the water flow rate values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Flow Rate Limit shall be reset as follows: - Using the CPMS, measure and record the scrubber water flow rate every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average scrubber water flow rate for each individual test run. - if the 3-hour average water flow rate recorded during the test is above the established limit, it shall not be reset and the established value remains the Flow Rate Limit; or - if the 3-hour average water flow rate recorded during the test is lower than the current limit, the Flow Rate Limit shall be reset as the lowest 1-hour average water flow rate corresponding to any of the three test runs. The new Flow Rate Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.407.20	Protocol for Resetting the Flow Rate Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Flow Rate Limit is to be reset, the reset shall be based on the water flow rate values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Flow Rate Limit shall be reset as follows: - Using the CPMS, measure and record the pressure drop every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average pressure drop for each individual test run. - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is below the minimum value of the established range, the Pressure Drop Limit shall be reset as the lowest 1-hour average pressure drop corresponding to any of the three test runs. The new Flow Rate Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended.

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	[Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B), Minn. R. 7017.2025]
5.407.21	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
5.407.22	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit and Flow Rate Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
TREA 63	Conveyor Transfer 003 Scrubber
5.408.1	The Permittee shall vent emissions from EQUI 288 to TREA 63 whenever EQUI 288 operates, and operate and maintain TREA 63 at all times that any emissions are vented to TREA 63. The Permittee shall document periods of non-operation of the control equipment TREA 63 whenever EQUI 288 is operating. Note: TREA 264 will replace TREA 63. Prior to the startup and operation of TREA 264, the Permittee shall follow the requirements for TREA 63. After the startup and operation of TREA 264, TREA 63 shall be shut down, and the Permittee shall follow requirements for TREA 264 instead of TREA 63. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.408.2	If the Permittee replaces TREA 63 the replacement control must meet or exceed the control efficiency requirements of TREA 63 as well as comply with all other requirements of TREA 63. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.408.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 95.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.408.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 94.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.408.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 90.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.408.6	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9590(c); 40 CFR 63.9590(b)(1); 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (3); 40 CFR 63.9610(a); 40 CFR 63.9622(f); 40 CFR 63.9631(b); 40 CFR 63.9632(b)-(e); 40 CFR 63.9633;

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	40 CFR 63.9634(a), (e), & (j); 40 CFR 63.9636(a)(1) & (3); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.408.7	Pressure Drop $\geq$ 3.9 inches of water daily average (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.408.8	Water flow rate $\geq$ 13.9 gallons per minute daily average (Flow Rate Limit), unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.408.9	The Permittee shall calculate and record the daily average water flow rate at least once each operating day using the continuous monitor data. If the recorded flow rate is below the required limit, the emissions during that time shall be considered uncontrolled until the flow rate is once again above the required limit. The period of time for which the flow rate is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.408.10	The Permittee shall record the daily average pressure drop at least once each operating day using the continuous monitor data. If the recorded pressure drop is below the required limit, the emissions during that time shall be considered uncontrolled until the pressure drop is once again above the required limit. The period of time for which the pressure drop is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.408.11	Recordkeeping of Pressure Drop and Water Flow Rate: The Permittee shall maintain a continuous written record of the pressure drop and water flow rate readings. The permittee shall record the daily average pressure drop reading and water flow rate reading and whether or not the observed value was within the range specified in this permit. Recorded values outside any range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subs. 4-5]
5.408.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded flow rate is below the required rate; - the recorded pressure drop is outside the required operating range; or - the scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop and/or water flow rate to within the permitted range(s), and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the Operation and

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	Maintenance (O & M) Plan for the scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for each scrubber. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.408.13	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the wet scrubber. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.408.14	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the wet scrubber not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.408.15	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop and water flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation. [Minn. R. 7007.0800, subp. 4]
5.408.16	The Permittee shall calibrate or replace the pressure drop and flow rate monitors at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.408.17	The Permittee shall operate and maintain the scrubber in accordance with the O & M Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.408.18	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Pressure Drop Range Limit shall be reset as follows: - Using the CPMS, measure and record the pressure drop every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average pressure drop for each individual test run. - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is below the minimum value of the established range, the Pressure Drop Limit shall be reset as the lowest 1-hour average pressure drop corresponding to any of the three test runs. Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B), Minn. R. 7017.2025]
5.408.19	Protocol for Resetting the Water Flow Rate Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Water Flow Rate Limit is to be reset, the reset shall be based on the water flow rate values recorded during the most recent MPCA-approved performance test where compliance was demonstrated.

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	The established Flow Rate Limit shall be reset as follows: - Using the CPMS, measure and record the scrubber water flow rate every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average scrubber water flow rate for each individual test run. - if the 3-hour average water flow rate recorded during the test is above the established limit, it shall not be reset and the established value remains the Flow Rate Limit; or - if the 3-hour average water flow rate recorded during the test is lower than the current limit, the Flow Rate Limit shall be reset as the lowest 1-hour average water flow rate corresponding to any of the three test runs. The new Flow Rate Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.408.20	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
5.408.21	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit and Flow Rate Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
TREA 64	Conveyor Transfer 003 to 004 Scrubber
5.409.1	The Permittee shall vent emissions from EQUI 12 and EQUI 290 to TREA 64 whenever EQUI 12 and EQUI 290 operate, and operate and maintain TREA 64 at all times that any emissions are vented to TREA 64. The Permittee shall document periods of non-operation of the control equipment TREA 64 whenever EQUI 12 and EQUI 290 is operating. Note: TREA 262 will replace TREA 64. Prior to the startup and operation of TREA 262, the Permittee shall follow the requirements for TREA 64. After the startup and operation of TREA 262, TREA 64 shall be shut down, and the Permittee shall follow requirements for TREA 262 instead of TREA 64. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.409.2	If the Permittee replaces TREA 64, the replacement control must meet or exceed the control efficiency requirements of TREA 64 as well as comply with all other requirements of TREA 64. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.409.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 95.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.409.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 94.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.409.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 90.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R.

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	7007.0800, subp. 2(A) and (B)]
5.409.6	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9590(c); 40 CFR 63.9590(b)(1); 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (3); 40 CFR 63.9610(a); 40 CFR 63.9622(f); 40 CFR 63.9631(b); 40 CFR 63.9632(b)-(e); 40 CFR 63.9633; 40 CFR 63.9634(a), (e), & (j); 40 CFR 63.9636(a)(1) & (3); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.409.7	Pressure Drop $\geq$ 3.3 inches of water daily average (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.409.8	Water flow rate $\geq$ 14.0 gallons per minute daily average (Flow Rate Limit), unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.409.9	The Permittee shall calculate and record the daily average water flow rate at least once each operating day using the continuous monitor data. If the recorded flow rate is below the required limit, the emissions during that time shall be considered uncontrolled until the flow rate is once again above the required limit. The period of time for which the flow rate is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.409.10	The Permittee shall record the daily average pressure drop at least once each operating day using the continuous monitor data. If the recorded pressure drop is below the required limit, the emissions during that time shall be considered uncontrolled until the pressure drop is once again above the required limit. The period of time for which the pressure drop is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.409.11	Recordkeeping of Pressure Drop and Water Flow Rate: The Permittee shall maintain a continuous written record of the pressure drop and water flow rate readings. The permittee shall record the daily

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	average pressure drop reading and water flow rate reading and whether or not the observed value was within the range specified in this permit. Recorded values outside any range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subps. 4-5]
5.409.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded flow rate is below the required rate; - the recorded pressure drop is outside the required operating range; or - the scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop and/or water flow rate to within the permitted range(s), and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the Operation and Maintenance (O & M) Plan for the scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for each scrubber. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.409.13	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the wet scrubber. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.409.14	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the wet scrubber not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.409.15	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop and water flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation. [Minn. R. 7007.0800, subp. 4]
5.409.16	The Permittee shall calibrate or replace the pressure drop and flow rate monitors at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.409.17	The Permittee shall operate and maintain the scrubber in accordance with the O & M Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.409.18	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Pressure Drop Range Limit shall be reset as follows: - Using the CPMS, measure and record the pressure drop every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average pressure drop for each individual test run. - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is below the minimum value of the established range, the

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	Pressure Drop Limit shall be reset as the lowest 1-hour average pressure drop corresponding to any of the three test runs. Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B), Minn. R. 7017.2025]
5.409.19	Protocol for Resetting the Water Flow Rate Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Water Flow Rate Limit is to be reset, the reset shall be based on the water flow rate values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Flow Rate Limit shall be reset as follows: - Using the CPMS, measure and record the scrubber water flow rate every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average scrubber water flow rate for each individual test run. - if the 3-hour average water flow rate recorded during the test is above the established limit, it shall not be reset and the established value remains the Flow Rate Limit; or - if the 3-hour average water flow rate recorded during the test is lower than the current limit, the Flow Rate Limit shall be reset as the lowest 1-hour average water flow rate corresponding to any of the three test runs. The new Flow Rate Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.409.20	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
5.409.21	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit and Flow Rate Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
TREA 65	Step III Tertiary Storage 006-080 Bins Scrubber
5.410.1	The Permittee shall vent emissions from EQUI 13, EQUI 14, EQUI 15, EQUI 291, EQUI 292, EQUI 293, and EQUI 296 to TREA 65 whenever EQUI 13, EQUI 14, EQUI 15, EQUI 291, EQUI 292, EQUI 293, or EQUI 296 operates, and operate and maintain TREA 65 at all times that any emissions are vented to TREA 65. The Permittee shall document periods of non-operation of the control equipment TREA 65 whenever EQUI 13, EQUI 14, EQUI 15, EQUI 291, EQUI 292, EQUI 293, or EQUI 296 is operating. Note: TREA 269 will replace TREA 65. Prior to the startup and operation of TREA 269, the Permittee shall follow the requirements for TREA 65. After the startup and operation of TREA 269, TREA 65 shall be shut down, and the Permittee shall follow requirements for TREA 269. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.410.2	If the Permittee replaces TREA 65, the replacement control must meet or exceed the control efficiency requirements of TREA 65 as well as comply with all other requirements of TREA 65. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable.

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	If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.410.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter $\geq$ 95.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.410.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron $\geq$ 94.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.410.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron $\geq$ 90.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.410.6	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9590(c); 40 CFR 63.9590(b)(1); 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (3); 40 CFR 63.9610(a); 40 CFR 63.9622(f); 40 CFR 63.9631(b); 40 CFR 63.9632(b)-(e); 40 CFR 63.9633; 40 CFR 63.9634(a), (e), & (j); 40 CFR 63.9636(a)(1) & (3); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.410.7	Pressure Drop $\geq$ 3.9 inches of water daily average (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.410.8	Water flow rate $\geq$ 14.3 gallons per minute daily average (Flow Rate Limit), unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.410.9	The Permittee shall calculate and record the daily average water flow rate at least once each

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	operating day using the continuous monitor data. If the recorded flow rate is below the required limit, the emissions during that time shall be considered uncontrolled until the flow rate is once again above the required limit. The period of time for which the flow rate is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.410.10	The Permittee shall record the daily average pressure drop at least once each operating day using the continuous monitor data. If the recorded pressure drop is below the required limit, the emissions during that time shall be considered uncontrolled until the pressure drop is once again above the required limit. The period of time for which the pressure drop is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.410.11	Recordkeeping of Pressure Drop and Water Flow Rate: The Permittee shall maintain a continuous written record of the pressure drop and water flow rate readings. The permittee shall record the daily average pressure drop reading and water flow rate reading and whether or not the observed value was within the range specified in this permit. Recorded values outside any range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subps. 4-5]
5.410.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded flow rate is below the required rate; - the recorded pressure drop is outside the required operating range; or - the scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop and/or water flow rate to within the permitted range(s), and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the Operation and Maintenance (O & M) Plan for the scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for each scrubber. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.410.13	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the wet scrubber. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.410.14	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the wet scrubber not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.410.15	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop and water flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation. [Minn. R. 7007.0800, subp. 4]
5.410.16	The Permittee shall calibrate or replace the pressure drop and flow rate monitors at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.410.17	The Permittee shall operate and maintain the scrubber in accordance with the O & M Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]

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5.410.18	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Pressure Drop Range Limit shall be reset as follows: - Using the CPMS, measure and record the pressure drop every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average pressure drop for each individual test run. - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is below the minimum value of the established range, the Pressure Drop Limit shall be reset as the lowest 1-hour average pressure drop corresponding to any of the three test runs. Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B), Minn. R. 7017.2025]
5.410.19	Protocol for Resetting the Water Flow Rate Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Water Flow Rate Limit is to be reset, the reset shall be based on the water flow rate values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Flow Rate Limit shall be reset as follows: - Using the CPMS, measure and record the scrubber water flow rate every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average scrubber water flow rate for each individual test run. - if the 3-hour average water flow rate recorded during the test is above the established limit, it shall not be reset and the established value remains the Flow Rate Limit; or - if the 3-hour average water flow rate recorded during the test is lower than the current limit, the Flow Rate Limit shall be reset as the lowest 1-hour average water flow rate corresponding to any of the three test runs. The new Flow Rate Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.410.20	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
5.410.21	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit and Flow Rate Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
TREA 66	Step III Tertiary Crusher Line 18 Scrubber

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5.411.1	The Permittee shall vent emissions from EQUI 297 to TREA 66 whenever TREA 66 operates, and operate and maintain TREA 66 at all times that any emissions are vented to TREA 66. The Permittee shall document periods of non-operation of the control equipment TREA 66 whenever EQUI 297 is operating. Note: TREA 250 will replace TREA 66. Prior to the startup and operation of TREA 250, the Permittee shall follow the requirements for TREA 66. After the startup and operation of TREA 250, TREA 66 shall be shut down, and the Permittee shall follow requirements for TREA 250 instead of TREA 66. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.411.2	If the Permittee replaces TREA 66, the replacement control must meet or exceed the control efficiency requirements of TREA 66 as well as comply with all other requirements of TREA 66. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.411.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 95.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.411.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 94.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.411.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 90.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.411.6	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9590(c); 40 CFR 63.9590(b)(1); 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (3); 40 CFR 63.9610(a); 40 CFR 63.9622(f); 40 CFR 63.9631(b); 40 CFR 63.9632(b)-(e); 40 CFR 63.9633; 40 CFR 63.9634(a), (e), & (j); 40 CFR 63.9636(a)(1) & (3); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if

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	there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.411.7	Pressure Drop $\geq$ 4.0 inches of water daily average (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.411.8	Water flow rate $\geq$ 21.8 gallons per minute daily average (Flow Rate Limit), unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.411.9	The Permittee shall calculate and record the daily average water flow rate at least once each operating day using the continuous monitor data. If the recorded flow rate is below the required limit, the emissions during that time shall be considered uncontrolled until the flow rate is once again above the required limit. The period of time for which the flow rate is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.411.10	The Permittee shall record the daily average pressure drop at least once each operating day using the continuous monitor data. If the recorded pressure drop is below the required limit, the emissions during that time shall be considered uncontrolled until the pressure drop is once again above the required limit. The period of time for which the pressure drop is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.411.11	Recordkeeping of Pressure Drop and Water Flow Rate: The Permittee shall maintain a continuous written record of the pressure drop and water flow rate readings. The permittee shall record the daily average pressure drop reading and water flow rate reading and whether or not the observed value was within the range specified in this permit. Recorded values outside any range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subs. 4-5]
5.411.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded flow rate is below the required rate; - the recorded pressure drop is outside the required operating range; or - the scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop and/or water flow rate to within the permitted range(s), and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the Operation and Maintenance (O & M) Plan for the scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for each scrubber. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.411.13	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the wet scrubber. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subs. 4-5]
5.411.14	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the wet scrubber not covered by quarterly external inspections. The Permittee must maintain a written record

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	of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.411.15	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop and water flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation. [Minn. R. 7007.0800, subp. 4]
5.411.16	The Permittee shall calibrate or replace the pressure drop and flow rate monitors at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.411.17	The Permittee shall operate and maintain the scrubber in accordance with the O & M Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.411.18	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Pressure Drop Range Limit shall be reset as follows: - Using the CPMS, measure and record the pressure drop every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average pressure drop for each individual test run. - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is below the minimum value of the established range, the Pressure Drop Limit shall be reset as the lowest 1-hour average pressure drop corresponding to any of the three test runs. Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B), Minn. R. 7017.2025]
5.411.19	Protocol for Resetting the Water Flow Rate Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Water Flow Rate Limit is to be reset, the reset shall be based on the water flow rate values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Flow Rate Limit shall be reset as follows: - Using the CPMS, measure and record the scrubber water flow rate every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average scrubber water flow rate for each individual test run. - if the 3-hour average water flow rate recorded during the test is above the established limit, it shall not be reset and the established value remains the Flow Rate Limit; or - if the 3-hour average water flow rate recorded during the test is lower than the current limit, the Flow Rate Limit shall be reset as the lowest 1-hour average water flow rate corresponding to any of the three test runs.

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	The new Flow Rate Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.411.20	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
5.411.21	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit and Flow Rate Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
TREA 67	Step III Tertiary Crusher Line 19 Scrubber
5.412.1	The Permittee shall vent emissions from EQUI 298 to TREA 67 whenever EQUI 298 operates, and operate and maintain TREA 67 at all times that any emissions are vented to TREA 67. The Permittee shall document periods of non-operation of the control equipment TREA 67 whenever EQUI 298 is operating. Note: TREA 252 will replace TREA 67. Prior to the startup and operation of TREA 252, the Permittee shall follow the requirements for TREA 67. After the startup and operation of TREA 252, TREA 67 shall be shut down, and the Permittee shall follow requirements for TREA 252 instead of TREA 67. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.412.2	If the Permittee replaces TREA 67, the replacement control must meet or exceed the control efficiency requirements of TREA 67 as well as comply with all other requirements of TREA 67. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.412.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 95.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.412.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 94.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.412.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 90.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.412.6	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9590(c); 40 CFR 63.9590(b)(1); 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (3); 40 CFR 63.9610(a); 40 CFR 63.9622(f);

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	40 CFR 63.9631(b); 40 CFR 63.9632(b)-(e); 40 CFR 63.9633; 40 CFR 63.9634(a), (e), & (j); 40 CFR 63.9636(a)(1) & (3); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.412.7	Pressure Drop $\geq$ 4.0 inches of water daily average (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.412.8	Water flow rate $\geq$ 21.3 gallons per minute daily average (Flow Rate Limit), unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.412.9	The Permittee shall calculate and record the daily average water flow rate at least once each operating day using the continuous monitor data. If the recorded flow rate is below the required limit, the emissions during that time shall be considered uncontrolled until the flow rate is once again above the required limit. The period of time for which the flow rate is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.412.10	The Permittee shall record the daily average pressure drop at least once each operating day using the continuous monitor data. If the recorded pressure drop is below the required limit, the emissions during that time shall be considered uncontrolled until the pressure drop is once again above the required limit. The period of time for which the pressure drop is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.412.11	Recordkeeping of Pressure Drop and Water Flow Rate: The Permittee shall maintain a continuous written record of the pressure drop and water flow rate readings. The permittee shall record the daily average pressure drop reading and water flow rate reading and whether or not the observed value was within the range specified in this permit. Recorded values outside any range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subs. 4-5]
5.412.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded flow rate is below the required rate; - the recorded pressure drop is outside the required operating range; or - the scrubber or any of its components are found during the inspections to need repair.

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	Corrective actions shall return the pressure drop and/or water flow rate to within the permitted range(s), and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the Operation and Maintenance (O & M) Plan for the scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for each scrubber. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.412.13	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the wet scrubber. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.412.14	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the wet scrubber not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.412.15	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop and water flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation. [Minn. R. 7007.0800, subp. 4]
5.412.16	The Permittee shall calibrate or replace the pressure drop and flow rate monitors at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.412.17	The Permittee shall operate and maintain the scrubber in accordance with the O & M Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.412.18	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Pressure Drop Range Limit shall be reset as follows: - Using the CPMS, measure and record the pressure drop every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average pressure drop for each individual test run. - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is below the minimum value of the established range, the Pressure Drop Limit shall be reset as the lowest 1-hour average pressure drop corresponding to any of the three test runs. Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B), Minn. R. 7017.2025]
5.412.19	Protocol for Resetting the Water Flow Rate Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Water Flow

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	Rate Limit is to be reset, the reset shall be based on the water flow rate values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Flow Rate Limit shall be reset as follows: - Using the CPMS, measure and record the scrubber water flow rate every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average scrubber water flow rate for each individual test run. - if the 3-hour average water flow rate recorded during the test is above the established limit, it shall not be reset and the established value remains the Flow Rate Limit; or - if the 3-hour average water flow rate recorded during the test is lower than the current limit, the Flow Rate Limit shall be reset as the lowest 1-hour average water flow rate corresponding to any of the three test runs. The new Flow Rate Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.412.20	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
5.412.21	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit and Flow Rate Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
TREA 68	Step III Tertiary Crusher Line 20 Scrubber
5.413.1	The Permittee shall vent emissions from EQUI 299 to TREA 68 whenever EQUI 299 operates, and operate and maintain TREA 68 at all times that any emissions are vented to TREA 68. The Permittee shall document periods of non-operation of the control equipment TREA 68 whenever EQUI 299 is operating. Note: TREA 253 will replace TREA 68. Prior to the startup and operation of TREA 253, the Permittee shall follow the requirements for TREA 68. After the startup and operation of TREA 253, TREA 68 shall be shut down, and the Permittee shall follow requirements for TREA 253 instead of TREA 68. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.413.2	If the Permittee replaces TREA 68, the replacement control must meet or exceed the control efficiency requirements of TREA 68 as well as comply with all other requirements of TREA 68. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.413.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 95.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.413.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 94.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]

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5.413.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron $\geq$ 90.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.413.6	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9590(c); 40 CFR 63.9590(b)(1); 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (3); 40 CFR 63.9610(a); 40 CFR 63.9622(f); 40 CFR 63.9631(b); 40 CFR 63.9632(b)-(e); 40 CFR 63.9633; 40 CFR 63.9634(a), (e), & (j); 40 CFR 63.9636(a)(1) & (3); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.413.7	Pressure Drop $\geq$ 4.0 inches of water daily average (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.413.8	Water flow rate $\geq$ 21.3 gallons per minute daily average (Flow Rate Limit), unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.413.9	The Permittee shall calculate and record the daily average water flow rate at least once each operating day using the continuous monitor data. If the recorded flow rate is below the required limit, the emissions during that time shall be considered uncontrolled until the flow rate is once again above the required limit. The period of time for which the flow rate is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.413.10	The Permittee shall record the daily average pressure drop at least once each operating day using the continuous monitor data. If the recorded pressure drop is below the required limit, the emissions during that time shall be considered uncontrolled until the pressure drop is once again above the required limit. The period of time for which the pressure drop is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]

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5.413.11	Recordkeeping of Pressure Drop and Water Flow Rate: The Permittee shall maintain a continuous written record of the pressure drop and water flow rate readings. The permittee shall record the daily average pressure drop reading and water flow rate reading and whether or not the observed value was within the range specified in this permit. Recorded values outside any range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subps. 4-5]
5.413.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded flow rate is below the required rate; - the recorded pressure drop is outside the required operating range; or - the scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop and/or water flow rate to within the permitted range(s), and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the Operation and Maintenance (O & M) Plan for the scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for each scrubber. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.413.13	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the wet scrubber. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.413.14	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the wet scrubber not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.413.15	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop and water flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation. [Minn. R. 7007.0800, subp. 4]
5.413.16	The Permittee shall calibrate or replace the pressure drop and flow rate monitors at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.413.17	The Permittee shall operate and maintain the scrubber in accordance with the O & M Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.413.18	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Pressure Drop Range Limit shall be reset as follows: - Using the CPMS, measure and record the pressure drop every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average pressure drop for each individual test run.

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	- if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is below the minimum value of the established range, the Pressure Drop Limit shall be reset as the lowest 1-hour average pressure drop corresponding to any of the three test runs. Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B), Minn. R. 7017.2025]
5.413.19	Protocol for Resetting the Water Flow Rate Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Water Flow Rate Limit is to be reset, the reset shall be based on the water flow rate values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Flow Rate Limit shall be reset as follows: - Using the CPMS, measure and record the scrubber water flow rate every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average scrubber water flow rate for each individual test run. - if the 3-hour average water flow rate recorded during the test is above the established limit, it shall not be reset and the established value remains the Flow Rate Limit; or - if the 3-hour average water flow rate recorded during the test is lower than the current limit, the Flow Rate Limit shall be reset as the lowest 1-hour average water flow rate corresponding to any of the three test runs. The new Flow Rate Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.413.20	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
5.413.21	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit and Flow Rate Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
TREA 69	Step III Tertiary Crusher Line 21 Scrubber
5.414.1	The Permittee shall vent emissions from EQUI 300 to TREA 69 whenever EQUI 300 operates, and operate and maintain TREA 69 at all times that any emissions are vented to TREA 69. The Permittee shall document periods of non-operation of the control equipment TREA 69 whenever EQUI 300 is operating. Note: TREA 251 will replace TREA 69. Prior to the startup and operation of TREA 251, the Permittee shall follow the requirements for TREA 69. After the startup and operation of TREA 251, TREA 69 shall be shut down, and the Permittee shall follow requirements for TREA 251 instead of TREA 69. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.414.2	If the Permittee replaces TREA 69, the replacement control must meet or exceed the control efficiency requirements of TREA 69 as well as comply with all other requirements of TREA 69. Prior to

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	making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.414.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 95.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.414.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 94.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.414.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 90.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.414.6	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9590(c); 40 CFR 63.9590(b)(1); 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (3); 40 CFR 63.9610(a); 40 CFR 63.9622(f); 40 CFR 63.9631(b); 40 CFR 63.9632(b)-(e); 40 CFR 63.9633; 40 CFR 63.9634(a), (e), & (j); 40 CFR 63.9636(a)(1) & (3); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.414.7	Pressure Drop ≥ 4.0 inches of water daily average (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.414.8	Water flow rate ≥ 21.3 gallons per minute daily average (Flow Rate Limit), unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R.

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	7011.8030, Minn. R. 7017.2025]
5.414.9	The Permittee shall calculate and record the daily average water flow rate at least once each operating day using the continuous monitor data. If the recorded flow rate is below the required limit, the emissions during that time shall be considered uncontrolled until the flow rate is once again above the required limit. The period of time for which the flow rate is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.414.10	The Permittee shall record the daily average pressure drop at least once each operating day using the continuous monitor data. If the recorded pressure drop is below the required limit, the emissions during that time shall be considered uncontrolled until the pressure drop is once again above the required limit. The period of time for which the pressure drop is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.414.11	Recordkeeping of Pressure Drop and Water Flow Rate: The Permittee shall maintain a continuous written record of the pressure drop and water flow rate readings. The permittee shall record the daily average pressure drop reading and water flow rate reading and whether or not the observed value was within the range specified in this permit. Recorded values outside any range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subps. 4-5]
5.414.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded flow rate is below the required rate; - the recorded pressure drop is outside the required operating range; or - the scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop and/or water flow rate to within the permitted range(s), and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the Operation and Maintenance (O & M) Plan for the scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for each scrubber. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.414.13	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the wet scrubber. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.414.14	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the wet scrubber not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.414.15	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop and water flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation. [Minn. R. 7007.0800, subp. 4]
5.414.16	The Permittee shall calibrate or replace the pressure drop and flow rate monitors at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.414.17	The Permittee shall operate and maintain the scrubber in accordance with the O & M Plan. The

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	Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.414.18	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Pressure Drop Range Limit shall be reset as follows: - Using the CPMS, measure and record the pressure drop every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average pressure drop for each individual test run. - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is below the minimum value of the established range, the Pressure Drop Limit shall be reset as the lowest 1-hour average pressure drop corresponding to any of the three test runs. Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B), Minn. R. 7017.2025]
5.414.19	Protocol for Resetting the Water Flow Rate Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Water Flow Rate Limit is to be reset, the reset shall be based on the water flow rate values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Flow Rate Limit shall be reset as follows: - Using the CPMS, measure and record the scrubber water flow rate every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average scrubber water flow rate for each individual test run. - if the 3-hour average water flow rate recorded during the test is above the established limit, it shall not be reset and the established value remains the Flow Rate Limit; or - if the 3-hour average water flow rate recorded during the test is lower than the current limit, the Flow Rate Limit shall be reset as the lowest 1-hour average water flow rate corresponding to any of the three test runs. The new Flow Rate Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.414.20	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
5.414.21	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit and Flow Rate Limit required

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	by this permit. [Minn. R. 7007.1500, subp. 1]
TREA 70	Step III Tertiary Crusher Line 22 Scrubber
5.415.1	The Permittee shall vent emissions from EQUI 301 to TREA 70 whenever EQUI 301 operates, and operate and maintain TREA 70 at all times that any emissions are vented to TREA 70. The Permittee shall document periods of non-operation of the control equipment TREA 70 whenever EQUI 301 is operating. Note: TREA 254 will replace TREA 70. Prior to the startup and operation of TREA 254, the Permittee shall follow the requirements for TREA 70. After the startup and operation of TREA 254, TREA 70 shall be shut down, and the Permittee shall follow requirements for TREA 254 instead of TREA 70. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.415.2	If the Permittee replaces TREA 70, the replacement control must meet or exceed the control efficiency requirements of TREA 70 as well as comply with all other requirements of TREA 70. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.415.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 95.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.415.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 94.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.415.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 90.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.415.6	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9590(c); 40 CFR 63.9590(b)(1); 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (3); 40 CFR 63.9610(a); 40 CFR 63.9622(f); 40 CFR 63.9631(b); 40 CFR 63.9632(b)-(e); 40 CFR 63.9633; 40 CFR 63.9634(a), (e), & (j); 40 CFR 63.9636(a)(1) & (3); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J.

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	If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.415.7	Pressure Drop $\geq$ 4.0 inches of water daily average (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.415.8	Water flow rate $\geq$ 21.3 gallons per minute daily average (Flow Rate Limit), unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.415.9	The Permittee shall calculate and record the daily average water flow rate at least once each operating day using the continuous monitor data. If the recorded flow rate is below the required limit, the emissions during that time shall be considered uncontrolled until the flow rate is once again above the required limit. The period of time for which the flow rate is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.415.10	The Permittee shall record the daily average pressure drop at least once each operating day using the continuous monitor data. If the recorded pressure drop is below the required limit, the emissions during that time shall be considered uncontrolled until the pressure drop is once again above the required limit. The period of time for which the pressure drop is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.415.11	Recordkeeping of Pressure Drop and Water Flow Rate: The Permittee shall maintain a continuous written record of the pressure drop and water flow rate readings. The permittee shall record the daily average pressure drop reading and water flow rate reading and whether or not the observed value was within the range specified in this permit. Recorded values outside any range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subs. 4-5]
5.415.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded flow rate is below the required rate; - the recorded pressure drop is outside the required operating range; or - the scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop and/or water flow rate to within the permitted range(s), and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the Operation and Maintenance (O & M) Plan for the scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for each scrubber. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.415.13	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the wet scrubber. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subs. 4-5]
5.415.14	Semiannual inspections: At least once semiannually, or more frequently if required by the

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	manufacturer's specifications, the Permittee must inspect the internal components of the wet scrubber not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.415.15	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop and water flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation. [Minn. R. 7007.0800, subp. 4]
5.415.16	The Permittee shall calibrate or replace the pressure drop and flow rate monitors at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.415.17	The Permittee shall operate and maintain the scrubber in accordance with the O & M Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.415.18	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Pressure Drop Range Limit shall be reset as follows: - Using the CPMS, measure and record the pressure drop every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average pressure drop for each individual test run. - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is below the minimum value of the established range, the Pressure Drop Limit shall be reset as the lowest 1-hour average pressure drop corresponding to any of the three test runs. Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B), Minn. R. 7017.2025]
5.415.19	Protocol for Resetting the Water Flow Rate Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Water Flow Rate Limit is to be reset, the reset shall be based on the water flow rate values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Flow Rate Limit shall be reset as follows: - Using the CPMS, measure and record the scrubber water flow rate every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average scrubber water flow rate for each individual test run. - if the 3-hour average water flow rate recorded during the test is above the established limit, it shall not be reset and the established value remains the Flow Rate Limit; or - if the 3-hour average water flow rate recorded during the test is lower than the current limit, the

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	Flow Rate Limit shall be reset as the lowest 1-hour average water flow rate corresponding to any of the three test runs. The new Flow Rate Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.415.20	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
5.415.21	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit and Flow Rate Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
TREA 71	Step III Tertiary Crusher Line 23 Scrubber
5.416.1	The Permittee shall vent emissions from EQUI 674 to TREA 71 whenever EQUI 674 operates, and operate and maintain TREA 71 at all times that any emissions are vented to TREA 71. The Permittee shall document periods of non-operation of the control equipment TREA 71 whenever EQUI 674 is operating. Note: TREA 255 will replace TREA 71. Prior to the startup and operation of TREA 255, the Permittee shall follow the requirements for TREA 71. After the startup and operation of TREA 255, TREA 71 shall be shut down, and the Permittee shall follow requirements for TREA 255 instead of TREA 71. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) & Minn. R. 7007.3000]
5.416.2	If the Permittee replaces TREA 71, the replacement control must meet or exceed the control efficiency requirements of TREA 71 as well as comply with all other requirements of TREA 71. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) & Minn. R. 7007.3000]
5.416.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 95.0 percent control efficiency. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) & Minn. R. 7007.3000]
5.416.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 94.3 percent control efficiency. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) & Minn. R. 7007.3000]
5.416.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 90.0 percent control efficiency. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) & Minn. R. 7007.3000]
5.416.6	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9590(c); 40 CFR 63.9590(b)(1); 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (3);

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	40 CFR 63.9610(a); 40 CFR 63.9622(f); 40 CFR 63.9631(b); 40 CFR 63.9632(b)-(e); 40 CFR 63.9633; 40 CFR 63.9634(a), (e), & (j); 40 CFR 63.9636(a)(1) & (3); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.416.7	Pressure Drop $\geq$ 4.0 inches of water daily average (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7011.8030, Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) & Minn. R. 7007.3000]
5.416.8	Water flow rate $\geq$ 21.3 gallons per minute daily average (Flow Rate Limit), unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7011.8030, Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) & Minn. R. 7007.3000]
5.416.9	The Permittee shall calculate and record the daily average water flow rate at least once each operating day using the continuous monitor data. If the recorded flow rate is below the required limit, the emissions during that time shall be considered uncontrolled until the flow rate is once again above the required limit. The period of time for which the flow rate is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) & Minn. R. 7007.3000]
5.416.10	The Permittee shall record the daily average pressure drop at least once each operating day using the continuous monitor data. If the recorded pressure drop is below the required limit, the emissions during that time shall be considered uncontrolled until the pressure drop is once again above the required limit. The period of time for which the pressure drop is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) & Minn. R. 7007.3000]
5.416.11	Recordkeeping of Pressure Drop and Water Flow Rate: The Permittee shall maintain a continuous written record of the pressure drop and water flow rate readings. The permittee shall record the daily average pressure drop reading and water flow rate reading and whether or not the observed value was within the range specified in this permit. Recorded values outside any range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subs. 4-5]
5.416.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded flow rate is below the required rate; - the recorded pressure drop is outside the required operating range; or

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	- the scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop and/or water flow rate to within the permitted range(s), and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the Operation and Maintenance (O & M) Plan for the scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for each scrubber. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.416.13	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the wet scrubber. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.416.14	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the wet scrubber not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.416.15	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop and water flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation. [Minn. R. 7007.0800, subp. 4]
5.416.16	The Permittee shall calibrate or replace the pressure drop and flow rate monitors at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.416.17	The Permittee shall operate and maintain the scrubber in accordance with the O & M Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.416.18	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Pressure Drop Range Limit shall be reset as follows: - Using the CPMS, measure and record the pressure drop every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average pressure drop for each individual test run. - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is below the minimum value of the established range, the Pressure Drop Limit shall be reset as the lowest 1-hour average pressure drop corresponding to any of the three test runs. Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B), Minn. R. 7017.2025]

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5.416.19	Protocol for Resetting the Water Flow Rate Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Water Flow Rate Limit is to be reset, the reset shall be based on the water flow rate values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Flow Rate Limit shall be reset as follows: - Using the CPMS, measure and record the scrubber water flow rate every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average scrubber water flow rate for each individual test run. - if the 3-hour average water flow rate recorded during the test is above the established limit, it shall not be reset and the established value remains the Flow Rate Limit; or - if the 3-hour average water flow rate recorded during the test is lower than the current limit, the Flow Rate Limit shall be reset as the lowest 1-hour average water flow rate corresponding to any of the three test runs. The new Flow Rate Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.416.20	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
5.416.21	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit and Flow Rate Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
TREA 72	Step III Tertiary Crusher Line 24 Scrubber
5.417.1	The Permittee shall vent emissions from EQUI 303 to TREA 72 whenever EQUI 303 operates, and operate and maintain TREA 72 at all times that any emissions are vented to TREA 72. The Permittee shall document periods of non-operation of the control equipment TREA 72 whenever EQUI 303 is operating. Note: TREA 257 will replace TREA 72. Prior to the startup and operation of TREA 257, the Permittee shall follow the requirements for TREA 72. After the startup and operation of TREA 257, TREA 72 shall be shut down, and the Permittee shall follow requirements for TREA 257 instead of TREA 72. [Minn. R. 7007.0800, subp. 2(A) & (B)]
5.417.2	If the Permittee replaces TREA 72, the replacement control must meet or exceed the control efficiency requirements of TREA 72 as well as comply with all other requirements of TREA 72. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.417.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 95.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]

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5.417.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron $\geq$ 94.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.417.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron $\geq$ 90.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.417.6	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9590(c); 40 CFR 63.9590(b)(1); 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (3); 40 CFR 63.9610(a); 40 CFR 63.9622(f); 40 CFR 63.9631(b); 40 CFR 63.9632(b)-(e); 40 CFR 63.9633; 40 CFR 63.9634(a), (e), & (j); 40 CFR 63.9636(a)(1) & (3); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.417.7	Pressure Drop $\geq$ 3.9 inches of water daily average (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.417.8	Water flow rate $\geq$ 22.0 gallons per minute daily average (Flow Rate Limit), unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.417.9	The Permittee shall calculate and record the daily average water flow rate at least once each operating day using the continuous monitor data. If the recorded flow rate is below the required limit, the emissions during that time shall be considered uncontrolled until the flow rate is once again above the required limit. The period of time for which the flow rate is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.417.10	The Permittee shall record the daily average pressure drop at least once each operating day using the continuous monitor data. If the recorded pressure drop is below the required limit, the emissions during that time shall be considered uncontrolled until the pressure drop is once again above the

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	required limit. The period of time for which the pressure drop is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.417.11	Recordkeeping of Pressure Drop and Water Flow Rate: The Permittee shall maintain a continuous written record of the pressure drop and water flow rate readings. The permittee shall record the daily average pressure drop reading and water flow rate reading and whether or not the observed value was within the range specified in this permit. Recorded values outside any range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subps. 4-5]
5.417.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded flow rate is below the required rate; - the recorded pressure drop is outside the required operating range; or - the scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop and/or water flow rate to within the permitted range(s), and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the Operation and Maintenance (O & M) Plan for the scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for each scrubber. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.417.13	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the wet scrubber. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.417.14	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the wet scrubber not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.417.15	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop and water flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation. [Minn. R. 7007.0800, subp. 4]
5.417.16	The Permittee shall calibrate or replace the pressure drop and flow rate monitors at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.417.17	The Permittee shall operate and maintain the scrubber in accordance with the O & M Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.417.18	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Pressure Drop Range Limit shall be reset as follows: - Using the CPMS, measure and record the pressure drop every 15 minutes during each run of the

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	particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average pressure drop for each individual test run. - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is below the minimum value of the established range, the Pressure Drop Limit shall be reset as the lowest 1-hour average pressure drop corresponding to any of the three test runs. Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B), Minn. R. 7017.2025]
5.417.19	Protocol for Resetting the Water Flow Rate Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Water Flow Rate Limit is to be reset, the reset shall be based on the water flow rate values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Flow Rate Limit shall be reset as follows: - Using the CPMS, measure and record the scrubber water flow rate every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average scrubber water flow rate for each individual test run. - if the 3-hour average water flow rate recorded during the test is above the established limit, it shall not be reset and the established value remains the Flow Rate Limit; or - if the 3-hour average water flow rate recorded during the test is lower than the current limit, the Flow Rate Limit shall be reset as the lowest 1-hour average water flow rate corresponding to any of the three test runs. The new Flow Rate Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.417.20	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
5.417.21	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit and Flow Rate Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
TREA 73	Step III Tertiary Crusher Line 25 Scrubber
5.418.1	The Permittee shall vent emissions from EQUI 675 to TREA 73 whenever EQUI 675 operates, and operate and maintain TREA 73 at all times that any emissions are vented to TREA 73. The Permittee shall document periods of non-operation of the control equipment TREA 73 whenever EQUI 675 is operating. Note: TREA 258 will replace TREA 73. Prior to the startup and operation of TREA 258, the Permittee shall follow the requirements for TREA 73. After the startup and operation of TREA 258, TREA 73 shall be shut down, and the Permittee shall follow requirements for TREA 258 instead of TREA 73. [Title I

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	Condition: Avoid major modification under 40 CFR 52.21(b)(2) & Minn. R. 7007.3000]
5.418.2	If the Permittee replaces TREA 73, the replacement control must meet or exceed the control efficiency requirements of TREA 73 as well as comply with all other requirements of TREA 73. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) & Minn. R. 7007.3000]
5.418.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 95.0 percent control efficiency. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) & Minn. R. 7007.3000]
5.418.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 94.3 percent control efficiency. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) & Minn. R. 7007.3000]
5.418.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 90.0 percent control efficiency. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) & Minn. R. 7007.3000]
5.418.6	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9590(c); 40 CFR 63.9590(b)(1); 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (3); 40 CFR 63.9610(a); 40 CFR 63.9622(f); 40 CFR 63.9631(b); 40 CFR 63.9632(b)-(e); 40 CFR 63.9633; 40 CFR 63.9634(a), (e), & (j); 40 CFR 63.9636(a)(1) & (3); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.418.7	Pressure Drop ≥ 3.9 inches of water daily average (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7011.8030, Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) & Minn. R. 7007.3000]

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5.418.8	Water flow rate $\geq$ 22.0 gallons per minute daily average (Flow Rate Limit), unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7011.8030, Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) & Minn. R. 7007.3000]
5.418.9	The Permittee shall calculate and record the daily average water flow rate at least once each operating day using the continuous monitor data. If the recorded flow rate is below the required limit, the emissions during that time shall be considered uncontrolled until the flow rate is once again above the required limit. The period of time for which the flow rate is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) & Minn. R. 7007.3000]
5.418.10	The Permittee shall record the daily average pressure drop at least once each operating day using the continuous monitor data. If the recorded pressure drop is below the required limit, the emissions during that time shall be considered uncontrolled until the pressure drop is once again above the required limit. The period of time for which the pressure drop is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) & Minn. R. 7007.3000]
5.418.11	Recordkeeping of Pressure Drop and Water Flow Rate: The Permittee shall maintain a continuous written record of the pressure drop and water flow rate readings. The permittee shall record the daily average pressure drop reading and water flow rate reading and whether or not the observed value was within the range specified in this permit. Recorded values outside any range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subps. 4-5]
5.418.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded flow rate is below the required rate; - the recorded pressure drop is outside the required operating range; or - the scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop and/or water flow rate to within the permitted range(s), and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the Operation and Maintenance (O & M) Plan for the scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for each scrubber. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.418.13	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the wet scrubber. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.418.14	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the wet scrubber not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.418.15	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop and water flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation. [Minn. R. 7007.0800, subp. 4]
5.418.16	The Permittee shall calibrate or replace the pressure drop and flow rate monitors at least once every

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	12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.418.17	The Permittee shall operate and maintain the scrubber in accordance with the O & M Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.418.18	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Pressure Drop Range Limit shall be reset as follows: - Using the CPMS, measure and record the pressure drop every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average pressure drop for each individual test run. - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is below the minimum value of the established range, the Pressure Drop Limit shall be reset as the lowest 1-hour average pressure drop corresponding to any of the three test runs. Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B), Minn. R. 7017.2025]
5.418.19	Protocol for Resetting the Water Flow Rate Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Water Flow Rate Limit is to be reset, the reset shall be based on the water flow rate values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Flow Rate Limit shall be reset as follows: - Using the CPMS, measure and record the scrubber water flow rate every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average scrubber water flow rate for each individual test run. - if the 3-hour average water flow rate recorded during the test is above the established limit, it shall not be reset and the established value remains the Flow Rate Limit; or - if the 3-hour average water flow rate recorded during the test is lower than the current limit, the Flow Rate Limit shall be reset as the lowest 1-hour average water flow rate corresponding to any of the three test runs. The new Flow Rate Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.418.20	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a

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	permit amendment incorporating the change. [Minn. R. 7017.2025]
5.418.21	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit and Flow Rate Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
TREA 74	Step III Tertiary Crusher Line 26 Scrubber
5.419.1	The Permittee shall vent emissions from EQUI 305 to TREA 74 whenever EQUI 305 operates, and operate and maintain TREA 74 at all times that any emissions are vented to TREA 74. The Permittee shall document periods of non-operation of the control equipment TREA 74 whenever EQUI 305 is operating. Note: TREA 259 will replace TREA 74. Prior to the startup and operation of TREA 259, the Permittee shall follow the requirements for TREA 74. After the startup and operation of TREA 259, TREA 74 shall be shut down, and the Permittee shall follow requirements for TREA 259 instead of TREA 74. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.419.2	If the Permittee replaces EQUI 305, the replacement control must meet or exceed the control efficiency requirements of EQUI 305 as well as comply with all other requirements of EQUI 305. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.419.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 95.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.419.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 94.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.419.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 90.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.419.6	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9590(c); 40 CFR 63.9590(b)(1); 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (3); 40 CFR 63.9610(a); 40 CFR 63.9622(f); 40 CFR 63.9631(b); 40 CFR 63.9632(b)-(e); 40 CFR 63.9633; 40 CFR 63.9634(a), (e), & (j); 40 CFR 63.9636(a)(1) & (3); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c);

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	40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.419.7	Pressure Drop $\geq$ 3.9 inches of water daily average (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.419.8	Water flow rate $\geq$ 22.0 gallons per minute daily average (Flow Rate Limit), unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.419.9	The Permittee shall calculate and record the daily average water flow rate at least once each operating day using the continuous monitor data. If the recorded flow rate is below the required limit, the emissions during that time shall be considered uncontrolled until the flow rate is once again above the required limit. The period of time for which the flow rate is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.419.10	The Permittee shall record the daily average pressure drop at least once each operating day using the continuous monitor data. If the recorded pressure drop is below the required limit, the emissions during that time shall be considered uncontrolled until the pressure drop is once again above the required limit. The period of time for which the pressure drop is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.419.11	Recordkeeping of Pressure Drop and Water Flow Rate: The Permittee shall maintain a continuous written record of the pressure drop and water flow rate readings. The permittee shall record the daily average pressure drop reading and water flow rate reading and whether or not the observed value was within the range specified in this permit. Recorded values outside any range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subs. 4-5]
5.419.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded flow rate is below the required rate; - the recorded pressure drop is outside the required operating range; or - the scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop and/or water flow rate to within the permitted range(s), and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the Operation and Maintenance (O & M) Plan for the scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for each scrubber. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.419.13	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the wet

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	scrubber. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.419.14	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the wet scrubber not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.419.15	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop and water flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation. [Minn. R. 7007.0800, subp. 4]
5.419.16	The Permittee shall calibrate or replace the pressure drop and flow rate monitors at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.419.17	The Permittee shall operate and maintain the scrubber in accordance with the O & M Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.419.18	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Pressure Drop Range Limit shall be reset as follows: - Using the CPMS, measure and record the pressure drop every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average pressure drop for each individual test run. - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is below the minimum value of the established range, the Pressure Drop Limit shall be reset as the lowest 1-hour average pressure drop corresponding to any of the three test runs. Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B), Minn. R. 7017.2025]
5.419.19	Protocol for Resetting the Water Flow Rate Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Water Flow Rate Limit is to be reset, the reset shall be based on the water flow rate values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Flow Rate Limit shall be reset as follows: - Using the CPMS, measure and record the scrubber water flow rate every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average scrubber water flow rate for each individual test run.

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	- if the 3-hour average water flow rate recorded during the test is above the established limit, it shall not be reset and the established value remains the Flow Rate Limit; or - if the 3-hour average water flow rate recorded during the test is lower than the current limit, the Flow Rate Limit shall be reset as the lowest 1-hour average water flow rate corresponding to any of the three test runs. The new Flow Rate Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.419.20	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
5.419.21	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit and Flow Rate Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
TREA 75	Step III Tertiary Crusher Line 27 Scrubber
5.420.1	The Permittee shall vent emissions from EQUI 306 to TREA 75 whenever EQUI 306 operates, and operate and maintain TREA 75 at all times that any emissions are vented to TREA 75. The Permittee shall document periods of non-operation of the control equipment TREA 75 whenever EQUI 306 is operating. Note: TREA 260 will replace TREA 75. Prior to the startup and operation of TREA 260, the Permittee shall follow the requirements for TREA 75. After the startup and operation of TREA 260, TREA 75 shall be shut down, and the Permittee shall follow requirements for TREA 260 instead of TREA 75. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.420.2	If the Permittee replaces TREA 75, the replacement control must meet or exceed the control efficiency requirements of TREA 75 as well as comply with all other requirements of TREA 75. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.420.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 95.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.420.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 94.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.420.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 90.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.420.6	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9590(c);

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	40 CFR 63.9590(b)(1); 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (3); 40 CFR 63.9610(a); 40 CFR 63.9622(f); 40 CFR 63.9631(b); 40 CFR 63.9632(b)-(e); 40 CFR 63.9633; 40 CFR 63.9634(a), (e), & (j); 40 CFR 63.9636(a)(1) & (3); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.420.7	Pressure Drop $\geq$ 3.9 inches of water daily average (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.420.8	Water flow rate $\geq$ 22.0 gallons per minute daily average (Flow Rate Limit), unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.420.9	The Permittee shall calculate and record the daily average water flow rate at least once each operating day using the continuous monitor data. If the recorded flow rate is below the required limit, the emissions during that time shall be considered uncontrolled until the flow rate is once again above the required limit. The period of time for which the flow rate is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.420.10	The Permittee shall record the daily average pressure drop at least once each operating day using the continuous monitor data. If the recorded pressure drop is below the required limit, the emissions during that time shall be considered uncontrolled until the pressure drop is once again above the required limit. The period of time for which the pressure drop is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.420.11	Recordkeeping of Pressure Drop and Water Flow Rate: The Permittee shall maintain a continuous written record of the pressure drop and water flow rate readings. The permittee shall record the daily average pressure drop reading and water flow rate reading and whether or not the observed value was within the range specified in this permit. Recorded values outside any range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subps. 4-5]
5.420.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the

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	following occur: - the recorded flow rate is below the required rate; - the recorded pressure drop is outside the required operating range; or - the scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop and/or water flow rate to within the permitted range(s), and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the Operation and Maintenance (O & M) Plan for the scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for each scrubber. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.420.13	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the wet scrubber. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.420.14	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the wet scrubber not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.420.15	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop and water flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation. [Minn. R. 7007.0800, subp. 4]
5.420.16	The Permittee shall calibrate or replace the pressure drop and flow rate monitors at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.420.17	The Permittee shall operate and maintain the scrubber in accordance with the O & M Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.420.18	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Pressure Drop Range Limit shall be reset as follows: - Using the CPMS, measure and record the pressure drop every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average pressure drop for each individual test run. - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is below the minimum value of the established range, the Pressure Drop Limit shall be reset as the lowest 1-hour average pressure drop corresponding to any of the three test runs. Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range

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	Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B), Minn. R. 7017.2025]
5.420.19	Protocol for Resetting the Water Flow Rate Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Water Flow Rate Limit is to be reset, the reset shall be based on the water flow rate values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Flow Rate Limit shall be reset as follows: - Using the CPMS, measure and record the scrubber water flow rate every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average scrubber water flow rate for each individual test run. - if the 3-hour average water flow rate recorded during the test is above the established limit, it shall not be reset and the established value remains the Flow Rate Limit; or - if the 3-hour average water flow rate recorded during the test is lower than the current limit, the Flow Rate Limit shall be reset as the lowest 1-hour average water flow rate corresponding to any of the three test runs. The new Flow Rate Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.420.20	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
5.420.21	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit and Flow Rate Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
TREA 76	Step III Tertiary Crusher Line 28 Scrubber
5.421.1	The Permittee shall vent emissions from EQUI 673 to TREA 76 whenever EQUI 673 operates, and operate and maintain TREA 76 at all times that any emissions are vented to TREA 76. The Permittee shall document periods of non-operation of the control equipment TREA 76 whenever EQUI 673 is operating. Note: TREA 256 will replace TREA 76. Prior to the startup and operation of TREA 256, the Permittee shall follow the requirements for TREA 76. After the startup and operation of TREA 256, TREA 76 shall be shut down, and the Permittee shall follow requirements for TREA 256 instead of TREA 76. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) & Minn. R. 7007.3000]
5.421.2	If the Permittee replaces TREA 76, the replacement control must meet or exceed the control efficiency requirements of TREA 76 as well as comply with all other requirements of TREA 76. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) & Minn. R. 7007.3000]
5.421.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency

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	for Particulate Matter ≥ 95.0 percent control efficiency. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) & Minn. R. 7007.3000]
5.421.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 94.3 percent control efficiency. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) & Minn. R. 7007.3000]
5.421.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 90.0 percent control efficiency. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) & Minn. R. 7007.3000]
5.421.6	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9590(c); 40 CFR 63.9590(b)(1); 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (3); 40 CFR 63.9610(a); 40 CFR 63.9622(f); 40 CFR 63.9631(b); 40 CFR 63.9632(b)-(e); 40 CFR 63.9633; 40 CFR 63.9634(a), (e), & (j); 40 CFR 63.9636(a)(1) & (3); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.421.7	Pressure Drop ≥ 3.9 inches of water daily average (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7011.8030, Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) & Minn. R. 7007.3000]
5.421.8	Water flow rate ≥ 22.0 gallons per minute daily average (Flow Rate Limit), unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7011.8030, Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) & Minn. R. 7007.3000]
5.421.9	The Permittee shall calculate and record the daily average water flow rate at least once each operating day using the continuous monitor data. If the recorded flow rate is below the required limit, the emissions during that time shall be considered uncontrolled until the flow rate is once again above the required limit. The period of time for which the flow rate is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) & Minn. R. 7007.3000]
5.421.10	The Permittee shall record the daily average pressure drop at least once each operating day using the

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	continuous monitor data. If the recorded pressure drop is below the required limit, the emissions during that time shall be considered uncontrolled until the pressure drop is once again above the required limit. The period of time for which the pressure drop is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) & Minn. R. 7007.3000]
5.421.11	Recordkeeping of Pressure Drop and Water Flow Rate: The Permittee shall maintain a continuous written record of the pressure drop and water flow rate readings. The permittee shall record the daily average pressure drop reading and water flow rate reading and whether or not the observed value was within the range specified in this permit. Recorded values outside any range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subps. 4-5]
5.421.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded flow rate is below the required rate; - the recorded pressure drop is outside the required operating range; or - the scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop and/or water flow rate to within the permitted range(s), and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the Operation and Maintenance (O & M) Plan for the scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for each scrubber. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.421.13	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the wet scrubber. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.421.14	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the wet scrubber not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.421.15	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop and water flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation. [Minn. R. 7007.0800, subp. 4]
5.421.16	The Permittee shall calibrate or replace the pressure drop and flow rate monitors at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.421.17	The Permittee shall operate and maintain the scrubber in accordance with the O & M Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.421.18	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated.

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	The established Pressure Drop Range Limit shall be reset as follows: - Using the CPMS, measure and record the pressure drop every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average pressure drop for each individual test run. - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is below the minimum value of the established range, the Pressure Drop Limit shall be reset as the lowest 1-hour average pressure drop corresponding to any of the three test runs. Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B), Minn. R. 7017.2025]
5.421.19	Protocol for Resetting the Water Flow Rate Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Water Flow Rate Limit is to be reset, the reset shall be based on the water flow rate values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Flow Rate Limit shall be reset as follows: - Using the CPMS, measure and record the scrubber water flow rate every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average scrubber water flow rate for each individual test run. - if the 3-hour average water flow rate recorded during the test is above the established limit, it shall not be reset and the established value remains the Flow Rate Limit; or - if the 3-hour average water flow rate recorded during the test is lower than the current limit, the Flow Rate Limit shall be reset as the lowest 1-hour average water flow rate corresponding to any of the three test runs. The new Flow Rate Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.421.20	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
5.421.21	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit and Flow Rate Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
TREA 86	Step III Concentrator Tripper Transfer Scrubber
5.422.1	The Permittee shall vent emissions from EQUI 173, EQUI 240, EQUI 241, and EQUI 395 to TREA 86 whenever EQUI 173, EQUI 240, EQUI 241, or EQUI 395 operates, and operate and maintain TREA 86 at all times that any emissions are vented to TREA 86. The Permittee shall document periods of non-operation of the control equipment TREA 86 whenever EQUI 173, EQUI 240, EQUI 241, or EQUI 395 is operating.

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	Note: TREA 261 will replace TREA 86. Prior to the startup and operation of TREA 261, the Permittee shall follow the requirements for TREA 86. After the startup and operation of TREA 261, TREA 86 shall be shut down, and the Permittee shall follow requirements for TREA 261 instead of TREA 86. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.422.2	If the Permittee replaces TREA 86, the replacement control must meet or exceed the control efficiency requirements of TREA 86 as well as comply with all other requirements of TREA 86. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.422.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 95.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.422.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 94.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.422.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 90.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.422.6	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9590(c); 40 CFR 63.9590(b)(1); 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (3); 40 CFR 63.9610(a); 40 CFR 63.9622(f); 40 CFR 63.9631(b); 40 CFR 63.9632(b)-(e); 40 CFR 63.9633; 40 CFR 63.9634(a), (e), & (j); 40 CFR 63.9636(a)(1) & (3); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.422.7	Pressure Drop ≥ 3.9 inches of water daily average (Pressure Drop Range Limit), unless a new range is

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	set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.422.8	Water flow rate $\geq$ 21.0 gallons per minute daily average (Flow Rate Limit), unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.422.9	The Permittee shall calculate and record the daily average water flow rate at least once each operating day using the continuous monitor data. If the recorded flow rate is below the required limit, the emissions during that time shall be considered uncontrolled until the flow rate is once again above the required limit. The period of time for which the flow rate is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.422.10	The Permittee shall record the daily average pressure drop at least once each operating day using the continuous monitor data. If the recorded pressure drop is below the required limit, the emissions during that time shall be considered uncontrolled until the pressure drop is once again above the required limit. The period of time for which the pressure drop is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.422.11	Recordkeeping of Pressure Drop and Water Flow Rate: The Permittee shall maintain a continuous written record of the pressure drop and water flow rate readings. The permittee shall record the daily average pressure drop reading and water flow rate reading and whether or not the observed value was within the range specified in this permit. Recorded values outside any range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subps. 4-5]
5.422.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded flow rate is below the required rate; - the recorded pressure drop is outside the required operating range; or - the scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop and/or water flow rate to within the permitted range(s), and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the Operation and Maintenance (O & M) Plan for the scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for each scrubber. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.422.13	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the wet scrubber. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.422.14	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the wet scrubber not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.422.15	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop and water flow rate as required by this permit. The

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	monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation. [Minn. R. 7007.0800, subp. 4]
5.422.16	The Permittee shall calibrate or replace the pressure drop and flow rate monitors at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.422.17	The Permittee shall operate and maintain the scrubber in accordance with the O & M Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.422.18	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Pressure Drop Range Limit shall be reset as follows: - Using the CPMS, measure and record the pressure drop every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average pressure drop for each individual test run. - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is below the minimum value of the established range, the Pressure Drop Limit shall be reset as the lowest 1-hour average pressure drop corresponding to any of the three test runs. Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B), Minn. R. 7017.2025]
5.422.19	Protocol for Resetting the Water Flow Rate Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Water Flow Rate Limit is to be reset, the reset shall be based on the water flow rate values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Flow Rate Limit shall be reset as follows: - Using the CPMS, measure and record the scrubber water flow rate every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average scrubber water flow rate for each individual test run. - if the 3-hour average water flow rate recorded during the test is above the established limit, it shall not be reset and the established value remains the Flow Rate Limit; or - if the 3-hour average water flow rate recorded during the test is lower than the current limit, the Flow Rate Limit shall be reset as the lowest 1-hour average water flow rate corresponding to any of the three test runs. The new Flow Rate Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.422.20	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits

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	and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
5.422.21	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit and Flow Rate Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
TREA 89	S3 Bentonite Storage Baghouse
5.423.1	The Permittee shall vent emissions from EQUI 278 to TREA 89 whenever EQUI 278 operates, and operate and maintain TREA 89 at all times that any emissions are vented to TREA 89. The Permittee shall document periods of non-operation of the control equipment TREA 89 whenever EQUI 278 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.423.2	If the Permittee replaces TREA 89, the replacement control must meet or exceed the control efficiency requirements of TREA 89 as well as comply with all other requirements of TREA 89. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.423.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.423.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.423.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.423.6	Pressure Drop ≥ 0.5 and ≤ 6.0 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. During inclement weather, the Permittee shall record the pressure drop at least once every 24 hours when in operation. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.423.7	Visible Emissions: The Permittee shall check the fabric filter stack STRU 113 for any visible emissions once each day of operation during daylight hours. If there are visible emissions, the emissions shall be considered uncontrolled until there are no longer visible emissions. The period of time for which there are visible emissions shall be reported as a deviation. During inclement weather, the Permittee shall read and record the pressure drop across the fabric filter, once each day of operation. [Minn. R. 7007.0800, subps. 4-5]
5.423.8	Recordkeeping of Visible Emissions and Pressure Drop. The Permittee shall record the time and date of each visible emission inspection and pressure drop reading, and whether or not any visible emissions were observed, and whether or not the observed pressure drop was within the range specified in this permit. [Minn. R. 7007.0800, subps. 4-5]

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5.423.9	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - visible emissions are observed; - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop to within the permitted range, eliminate visible emissions, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.423.10	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.423.11	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.423.12	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.423.13	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.423.14	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.423.15	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee shall calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time. The established Pressure Drop Range Limit shall be reset as follows: - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range.

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	The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.423.16	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.423.17	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
TREA 90	Limestone Receiving Baghouse
5.424.1	The Permittee shall vent emissions from EQUI 275 and EQUI 705 to TREA 90 whenever EQUI 275 or EQUI 705 operates, and operate and maintain TREA 90 at all times that any emissions are vented to TREA 90. The Permittee shall document periods of non-operation of the control equipment TREA 90 whenever EQUI 275 or EQUI 705 is operating. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) & Minn. R. 7007.3000]
5.424.2	If the Permittee replaces TREA 90, the replacement control must meet or exceed the control efficiency requirements of TREA 90 as well as comply with all other requirements of TREA 90. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) & Minn. R. 7007.3000]
5.424.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 99.4 percent control efficiency. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) & Minn. R. 7007.3000]
5.424.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 99.3 percent control efficiency. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) & Minn. R. 7007.3000]
5.424.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.424.6	Pressure Drop ≥ 0.5 and ≤ 8.0 inches of water, unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new range shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The range is final upon issuance of a permit amendment incorporating the change. If the recorded pressure drop is outside the required range, the emissions during that time must be considered uncontrolled until the pressure drop is once again within the required range. The period of

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	time for which the pressure drop is considered out of range must be reported as a deviation. [During inclement weather,] The Permittee must record the pressure drop at least once every 24 hours when in operation. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
5.424.7	Visible Emissions: The Permittee shall check the fabric filter stack STRU 253 for any visible emissions once each day of operation during daylight hours. If there are visible emissions, the emissions shall be considered uncontrolled until there are no longer visible emissions. The period of time for which there are visible emissions shall be reported as a deviation. During inclement weather, the Permittee shall read and record the pressure drop across the fabric filter, once each day of operation. [Minn. R. 7007.0800, subps. 4-5]
5.424.8	Recordkeeping of Visible Emissions and Pressure Drop. The Permittee shall record the time and date of each visible emission inspection and pressure drop reading, and whether or not any visible emissions were observed, and whether or not the observed pressure drop was within the range specified in this permit. [Minn. R. 7007.0800, subps. 4-5]
5.424.9	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.424.10	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.424.11	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.424.12	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.424.13	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.424.14	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
TREA 94	Line 3 Bentonite Blending Baghouse
5.425.1	The Permittee shall vent emissions from EQUI 143, EQUI 144, EQUI 345, and EQUI 346 to TREA 94 whenever EQUI 143, EQUI 144, EQUI 345, or EQUI 346 operates, and operate and maintain TREA 94 at all times that any emissions are vented to TREA 94. The Permittee shall document periods of non-

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	operation of the control equipment TREA 94 whenever EQUI 143, EQUI 144, EQUI 345, or EQUI 346 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.425.2	If the Permittee replaces TREA 94, the replacement control must meet or exceed the control efficiency requirements of TREA 94 as well as comply with all other requirements of TREA 94. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.425.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.425.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.425.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.425.6	Pressure Drop ≥ 0.5 and ≤ 8.0 inches of water, unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new range shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The range is final upon issuance of a permit amendment incorporating the change. If the recorded pressure drop is outside the required range, the emissions during that time must be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range must be reported as a deviation. The Permittee must record the pressure drop at least once every 24 hours when in operation. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.425.7	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.425.8	Pressure Drop: Recordkeeping. The Permittee shall record the time and date of each pressure drop reading and whether or not the recorded pressure drop was within the range specified in this permit. [Minn. R. 7007.0800, subps. 4-5]
5.425.9	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.425.10	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation.

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	[Minn. R. 7007.0800, subp. 4]
5.425.11	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.425.12	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.425.13	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
TREA 97	S1 Bentonite Storage Baghouse
5.426.1	The Permittee shall vent emissions from EQUI 151, EQUI 355, and EQUI 356 to TREA 97 whenever EQUI 151, EQUI 355, or EQUI 356 operates, and operate and maintain TREA 97 at all times that any emissions are vented to TREA 97. The Permittee shall document periods of non-operation of the control equipment TREA 97 whenever EQUI 151, EQUI 355, or EQUI 356 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.426.2	If the Permittee replaces TREA 97, the replacement control must meet or exceed the control efficiency requirements of TREA 97 as well as comply with all other requirements of TREA 97. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.426.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.426.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.426.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.426.6	Pressure Drop ≥ 0.5 and ≤ 8.0 inches of water, unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new range shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The range is final upon issuance of a permit amendment incorporating the change. If the recorded pressure drop is outside the required range, the emissions during that time must be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range must be reported as a deviation. The Permittee must record the pressure drop at least once every 24 hours when in operation. [Minn. R.

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	7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.426.7	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop to within the permitted range, eliminate visible emissions, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.426.8	Pressure Drop: Recordkeeping. The Permittee shall record the time and date of each pressure drop reading and whether or not the recorded pressure drop was within the range specified in this permit. [Minn. R. 7007.0800, subps. 4-5]
5.426.9	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.426.10	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.426.11	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.426.12	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.426.13	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
TREA 98	Line 2, 3 Bentonite Day Bin Baghouse
5.427.1	The Permittee shall vent emissions from EQUI 152, EQUI 153, EQUI 357, and EQUI 358 to TREA 98 whenever EQUI 152, EQUI 153, EQUI 357, or EQUI 358 operates, and operate and maintain TREA 98 at all times that any emissions are vented to TREA 98. The Permittee shall document periods of non-operation of the control equipment TREA 98 whenever EQUI 152, EQUI 153, EQUI 357, or EQUI 358 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.427.2	If the Permittee replaces TREA 98, the replacement control must meet or exceed the control efficiency requirements of TREA 98 as well as comply with all other requirements of TREA 98. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp.

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	2(A) & (B)]
5.427.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.427.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.427.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.427.6	Pressure Drop ≥ 0.5 and ≤ 8.0 inches of water, unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new range shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The range is final upon issuance of a permit amendment incorporating the change. If the recorded pressure drop is outside the required range, the emissions during that time must be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range must be reported as a deviation. The Permittee must record the pressure drop at least once every 24 hours when in operation. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.427.7	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.427.8	Pressure Drop: Recordkeeping. The Permittee shall record the time and date of each pressure drop reading and whether or not the recorded pressure drop was within the range specified in this permit. [Minn. R. 7007.0800, subps. 4-5]
5.427.9	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.427.10	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.427.11	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.427.12	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.427.13	Semiannual inspections: At least once semiannually, or more frequently if required by the

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	manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
TREA 99	Agglomerators I & II Bentonite Unloading Baghouse
5.428.1	The Permittee shall vent emissions from EQUI 359 to TREA 99 whenever EQUI 359 operates, and operate and maintain TREA 99 at all times that any emissions are vented to TREA 99. The Permittee shall document periods of non-operation of the control equipment TREA 99 whenever EQUI 359 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.428.2	If the Permittee replaces TREA 99, the replacement control must meet or exceed the control efficiency requirements of TREA 99 as well as comply with all other requirements of TREA 99. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.428.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.428.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.428.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.428.6	Pressure Drop ≥ 0.5 and ≤ 8.0 inches of water, unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new range shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The range is final upon issuance of a permit amendment incorporating the change. If the recorded pressure drop is outside the required range, the emissions during that time must be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range must be reported as a deviation. The Permittee must record the pressure drop at least once every 24 hours when in operation. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.428.7	Visible Emissions: The Permittee shall check the fabric filter stack STRU 125 for any visible emissions once each day of operation during daylight hours. If there are visible emissions, the emissions shall be considered uncontrolled until there are no longer visible emissions. The period of time for which there are visible emissions shall be reported as a deviation. During inclement weather, the Permittee shall read and record the pressure drop across the fabric filter, once each day of operation. [Minn. R. 7007.0800, subps. 4-5]
5.428.8	Recordkeeping of Visible Emissions and Pressure Drop. The Permittee shall record the time and date of each visible emission inspection and pressure drop reading, and whether or not any visible emissions were observed, and whether or not the observed pressure drop was within the range

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	specified in this permit. [Minn. R. 7007.0800, subps. 4-5]
5.428.9	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - visible emissions are observed; - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop to within the permitted range, eliminate visible emissions, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.428.10	Pressure Drop: Recordkeeping. The Permittee shall record the time and date of each pressure drop reading and whether or not the recorded pressure drop was within the range specified in this permit. [Minn. R. 7007.0800, subps. 4-5]
5.428.11	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.428.12	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.428.13	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.428.14	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.428.15	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
TREA 100	S2 Bentonite Storage Baghouse
5.429.1	The Permittee shall vent emissions from EQUI 154, EQUI 360, and EQUI 361 to TREA 100 whenever EQUI 154, EQUI 360, or EQUI 361 operates, and operate and maintain TREA 100 at all times that any emissions are vented to TREA 100. The Permittee shall document periods of non-operation of the control equipment TREA 100 whenever EQUI 154, EQUI 360, or EQUI 361 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.429.2	If the Permittee replaces TREA 100, the replacement control must meet or exceed the control efficiency requirements of TREA 100 as well as comply with all other requirements of TREA 100. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to

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	the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.429.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.429.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.429.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.429.6	Pressure Drop ≥ 0.5 and ≤ 6.0 inches of water, unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new range shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The range is final upon issuance of a permit amendment incorporating the change. If the recorded pressure drop is outside the required range, the emissions during that time must be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range must be reported as a deviation. The Permittee must record the pressure drop at least once every 24 hours when in operation. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.429.7	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.429.8	Pressure Drop: Recordkeeping. The Permittee shall record the time and date of each pressure drop reading and whether or not the recorded pressure drop was within the range specified in this permit. [Minn. R. 7007.0800, subps. 4-5]
5.429.9	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.429.10	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.429.11	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.429.12	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]

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5.429.13	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
TREA 101	Line 4 Bentonite Day Bin Baghouse
5.430.1	The Permittee shall vent emissions from EQUI 155, EQUI 156, EQUI 362, EQUI 363, and EQUI 364 to TREA 101 whenever EQUI 155, EQUI 156, EQUI 362, EQUI 363, or EQUI 364 operates, and operate and maintain TREA 101 at all times that any emissions are vented to TREA 101. The Permittee shall document periods of non-operation of the control equipment TREA 101 whenever EQUI 155, EQUI 156, EQUI 362, EQUI 363, and EQUI 364 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.430.2	If the Permittee replaces TREA 101, the replacement control must meet or exceed the control efficiency requirements of TREA 101 as well as comply with all other requirements of TREA 101. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.430.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.430.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.430.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.430.6	Pressure Drop ≥ 0.5 and ≤ 6.0 inches of water, unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new range shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The range is final upon issuance of a permit amendment incorporating the change. If the recorded pressure drop is outside the required range, the emissions during that time must be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range must be reported as a deviation. The Permittee must record the pressure drop at least once every 24 hours when in operation. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.430.7	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee

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	shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.430.8	Pressure Drop: Recordkeeping. The Permittee shall record the time and date of each pressure drop reading and whether or not the recorded pressure drop was within the range specified in this permit. [Minn. R. 7007.0800, subps. 4-5]
5.430.9	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.430.10	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.430.11	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.430.12	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.430.13	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
TREA 102	Line 4 Bentonite Blending Baghouse
5.431.1	The Permittee shall vent emissions from EQUI 157, EQUI 158, EQUI 365, EQUI 366, and EQUI 367 to TREA 102 whenever from EQUI 157, EQUI 158, EQUI 365, EQUI 366, or EQUI 367 operates, and operate and maintain TREA 102 at all times that any emissions are vented to TREA 102. The Permittee shall document periods of non-operation of the control equipment TREA 102 whenever from EQUI 157, EQUI 158, EQUI 365, EQUI 366, or EQUI 367 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.431.2	If the Permittee replaces TREA 102, the replacement control must meet or exceed the control efficiency requirements of TREA 102 as well as comply with all other requirements of TREA 102. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.431.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter $\geq$ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.431.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron $\geq$ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]

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5.431.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron $\geq$ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.431.6	Pressure Drop $\geq$ 0.5 and $\leq$ 6.0 inches of water, unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new range shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The range is final upon issuance of a permit amendment incorporating the change. If the recorded pressure drop is outside the required range, the emissions during that time must be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range must be reported as a deviation. The Permittee must record the pressure drop at least once every 24 hours when in operation. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.431.7	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop to within the permitted range, eliminate visible emissions, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.431.8	Pressure Drop: Recordkeeping. The Permittee shall record the time and date of each pressure drop reading and whether or not the recorded pressure drop was within the range specified in this permit. [Minn. R. 7007.0800, subps. 4-5]
5.431.9	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.431.10	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.431.11	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.431.12	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.431.13	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
TREA 103	Agglomerators II Line 4 Grate Feed Scrubber

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5.432.1	The Permittee shall vent emissions from EQUI 159 to TREA 103 whenever EQUI 159 operates, and operate and maintain TREA 103 at all times that any emissions are vented to TREA 103. The Permittee shall document periods of non-operation of the control equipment TREA 103 whenever EQUI 159 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.432.2	If the Permittee replaces TREA 103, the replacement control must meet or exceed the control efficiency requirements of TREA 103 as well as comply with all other requirements of TREA 103. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.432.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 95.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.432.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 94.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.432.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 90.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.432.6	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9590(c); 40 CFR 63.9590(b)(1); 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (3); 40 CFR 63.9610(a); 40 CFR 63.9622(f); 40 CFR 63.9631(b); 40 CFR 63.9632(b)-(e); 40 CFR 63.9633; 40 CFR 63.9634(a), (e), & (j); 40 CFR 63.9636(a)(1) & (3); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.432.7	Pressure Drop ≥ 3.2 inches of water daily average (Pressure Drop Range Limit), unless a new range is

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	set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.432.8	Water flow rate $\geq$ 42.0 gallons per minute daily average (Flow Rate Limit), unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.432.9	The Permittee shall calculate and record the daily average water flow rate at least once each operating day using the continuous monitor data. If the recorded flow rate is below the required limit, the emissions during that time shall be considered uncontrolled until the flow rate is once again above the required limit. The period of time for which the flow rate is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.432.10	The Permittee shall record the daily average pressure drop at least once each operating day using the continuous monitor data. If the recorded pressure drop is below the required limit, the emissions during that time shall be considered uncontrolled until the pressure drop is once again above the required limit. The period of time for which the pressure drop is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.432.11	Recordkeeping of Pressure Drop and Water Flow Rate: The Permittee shall maintain a continuous written record of the pressure drop and water flow rate readings. The permittee shall record the daily average pressure drop reading and water flow rate reading and whether or not the observed value was within the range specified in this permit. Recorded values outside any range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subps. 4-5]
5.432.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded flow rate is below the required rate; - the recorded pressure drop is outside the required operating range; or - the scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop and/or water flow rate to within the permitted range(s), and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the Operation and Maintenance (O & M) Plan for the scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for each scrubber. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.432.13	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the wet scrubber. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.432.14	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the wet scrubber not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.432.15	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop and water flow rate as required by this permit. The

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	monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation. [Minn. R. 7007.0800, subp. 4]
5.432.16	The Permittee shall calibrate or replace the pressure drop and flow rate monitors at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.432.17	The Permittee shall operate and maintain the scrubber in accordance with the O & M Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.432.18	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Pressure Drop Range Limit shall be reset as follows: - Using the CPMS, measure and record the pressure drop every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average pressure drop for each individual test run. - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is below the minimum value of the established range, the Pressure Drop Limit shall be reset as the lowest 1-hour average pressure drop corresponding to any of the three test runs. Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B), Minn. R. 7017.2025]
5.432.19	Protocol for Resetting the Water Flow Rate Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Water Flow Rate Limit is to be reset, the reset shall be based on the water flow rate values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Flow Rate Limit shall be reset as follows: - Using the CPMS, measure and record the scrubber water flow rate every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average scrubber water flow rate for each individual test run. - if the 3-hour average water flow rate recorded during the test is above the established limit, it shall not be reset and the established value remains the Flow Rate Limit; or - if the 3-hour average water flow rate recorded during the test is lower than the current limit, the Flow Rate Limit shall be reset as the lowest 1-hour average water flow rate corresponding to any of the three test runs. The new Flow Rate Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.432.20	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits

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	and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
5.432.21	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit and Flow Rate Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
TREA 104	Agglomerators II Line 4 Grate Discharge Scrubber
5.433.1	The Permittee shall vent emissions from EQUI 368 to TREA 104 whenever EQUI 368 operates, and operate and maintain TREA 104 at all times that any emissions are vented to TREA 104. The Permittee shall document periods of non-operation of the control equipment TREA 104 whenever EQUI 368 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.433.2	If the Permittee replaces TREA 104, the replacement control must meet or exceed the control efficiency requirements of TREA 104 as well as comply with all other requirements of TREA 104. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.433.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 96.6 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.433.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 94.5 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.433.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 90.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.433.6	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9590(c); 40 CFR 63.9590(b)(1); 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (3); 40 CFR 63.9610(a); 40 CFR 63.9622(f); 40 CFR 63.9631(b); 40 CFR 63.9632(b)-(e); 40 CFR 63.9633; 40 CFR 63.9634(a), (e), & (j); 40 CFR 63.9636(a)(1) & (3); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652.

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	A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.433.7	Pressure Drop $\geq$ 3.2 inches of water daily average (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.433.8	Water flow rate $\geq$ 42.0 gallons per minute daily average (Flow Rate Limit), unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.433.9	The Permittee shall calculate and record the daily average water flow rate at least once each operating day using the continuous monitor data. If the recorded flow rate is below the required limit, the emissions during that time shall be considered uncontrolled until the flow rate is once again above the required limit. The period of time for which the flow rate is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.433.10	The Permittee shall record the daily average pressure drop at least once each operating day using the continuous monitor data. If the recorded pressure drop is below the required limit, the emissions during that time shall be considered uncontrolled until the pressure drop is once again above the required limit. The period of time for which the pressure drop is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.433.11	Recordkeeping of Pressure Drop and Water Flow Rate: The Permittee shall maintain a continuous written record of the pressure drop and water flow rate readings. The permittee shall record the daily average pressure drop reading and water flow rate reading and whether or not the observed value was within the range specified in this permit. Recorded values outside any range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subs. 4-5]
5.433.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded flow rate is below the required rate; - the recorded pressure drop is outside the required operating range; or - the scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop and/or water flow rate to within the permitted range(s), and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the Operation and Maintenance (O & M) Plan for the scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for each scrubber. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.433.13	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the wet scrubber. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subs. 4-5]

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5.433.14	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the wet scrubber not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.433.15	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop and water flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation. [Minn. R. 7007.0800, subp. 4]
5.433.16	The Permittee shall calibrate or replace the pressure drop and flow rate monitors at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.433.17	The Permittee shall operate and maintain the scrubber in accordance with the O & M Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.433.18	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Pressure Drop Range Limit shall be reset as follows: - Using the CPMS, measure and record the pressure drop every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average pressure drop for each individual test run. - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is below the minimum value of the established range, the Pressure Drop Limit shall be reset as the lowest 1-hour average pressure drop corresponding to any of the three test runs. Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B), Minn. R. 7017.2025]
5.433.19	Protocol for Resetting the Water Flow Rate Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Water Flow Rate Limit is to be reset, the reset shall be based on the water flow rate values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Flow Rate Limit shall be reset as follows: - Using the CPMS, measure and record the scrubber water flow rate every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average scrubber water flow rate for each individual test run. - if the 3-hour average water flow rate recorded during the test is above the established limit, it shall not be reset and the established value remains the Flow Rate Limit; or

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	- if the 3-hour average water flow rate recorded during the test is lower than the current limit, the Flow Rate Limit shall be reset as the lowest 1-hour average water flow rate corresponding to any of the three test runs. The new Flow Rate Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.433.20	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
5.433.21	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit and Flow Rate Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
TREA 107	Agglomerator I Line 4 Cooler Discharge Scrubber
5.434.1	The Permittee shall vent emissions from EQUI 79 to TREA 107 whenever EQUI 79 operates, and operate and maintain TREA 107 at all times that any emissions are vented to TREA 107. The Permittee shall document periods of non-operation of the control equipment TREA 107 whenever EQUI 79 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.434.2	If the Permittee replaces TREA 107, the replacement control must meet or exceed the control efficiency requirements of TREA 107 as well as comply with all other requirements of TREA 107. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.434.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 95.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.434.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 94.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.434.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 90.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.434.6	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9590(c); 40 CFR 63.9590(b)(1); 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (3); 40 CFR 63.9610(a); 40 CFR 63.9622(f); 40 CFR 63.9631(b); 40 CFR 63.9632(b)-(e);

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	40 CFR 63.9633; 40 CFR 63.9634(a), (e), & (j); 40 CFR 63.9636(a)(1) & (3); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.434.7	Pressure Drop $\geq$ 1.7 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.434.8	Water flow rate $\geq$ 31 gallons per minute daily average (Flow Rate Limit), unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.434.9	The Permittee shall calculate and record the daily average water flow rate at least once each operating day using the continuous monitor data. If the recorded flow rate is below the required limit, the emissions during that time shall be considered uncontrolled until the flow rate is once again above the required limit. The period of time for which the flow rate is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.434.10	The Permittee shall record the daily average pressure drop at least once each operating day using the continuous monitor data. If the recorded pressure drop is below the required limit, the emissions during that time shall be considered uncontrolled until the pressure drop is once again above the required limit. The period of time for which the pressure drop is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.434.11	Recordkeeping of Pressure Drop and Water Flow Rate: The Permittee shall maintain a continuous written record of the pressure drop and water flow rate readings. The permittee shall record the daily average pressure drop reading and water flow rate reading and whether or not the observed value was within the range specified in this permit. Recorded values outside any range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subs. 4-5]
5.434.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded flow rate is below the required rate; - the recorded pressure drop is outside the required operating range; or - the scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop and/or water flow rate to within the permitted range(s), and/or include completion of necessary repairs identified during the inspection, as

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	applicable. Corrective actions include, but are not limited to, those outlined in the Operation and Maintenance (O & M) Plan for the scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for each scrubber. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.434.13	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the wet scrubber. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.434.14	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the wet scrubber not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.434.15	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop and water flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation. [Minn. R. 7007.0800, subp. 4]
5.434.16	The Permittee shall calibrate or replace the pressure drop and flow rate monitors at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.434.17	The Permittee shall operate and maintain the scrubber in accordance with the O & M Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.434.18	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Pressure Drop Range Limit shall be reset as follows: - Using the CPMS, measure and record the pressure drop every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average pressure drop for each individual test run. - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is below the minimum value of the established range, the Pressure Drop Limit shall be reset as the lowest 1-hour average pressure drop corresponding to any of the three test runs. Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B), Minn. R. 7017.2025]
5.434.19	Protocol for Resetting the Water Flow Rate Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Water Flow Rate Limit is to be reset, the reset shall be based on the water flow rate values recorded during the most recent MPCA-approved performance test where compliance was demonstrated.

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	The established Flow Rate Limit shall be reset as follows: - Using the CPMS, measure and record the scrubber water flow rate every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average scrubber water flow rate for each individual test run. - if the 3-hour average water flow rate recorded during the test is above the established limit, it shall not be reset and the established value remains the Flow Rate Limit; or - if the 3-hour average water flow rate recorded during the test is lower than the current limit, the Flow Rate Limit shall be reset as the lowest 1-hour average water flow rate corresponding to any of the three test runs. The new Flow Rate Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.434.20	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
5.434.21	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit and Flow Rate Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
TREA 108	41, 46 Conveyor Transfer Scrubber
5.435.1	The Permittee shall vent emissions from EQUI 46, EQUI 315, and EQUI 372 to TREA 108 whenever EQUI 46, EQUI 315, or EQUI 372 operates, and operate and maintain TREA 108 at all times that any emissions are vented to TREA 108. The Permittee shall document periods of non-operation of the control equipment TREA 108 whenever EQUI 46, EQUI 315, and EQUI 372 are operating. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subp. 14]
5.435.2	If the Permittee replaces TREA 108, the replacement control must meet or exceed the control efficiency requirements of TREA 108 as well as comply with all other requirements of TREA 108. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.435.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 95.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.435.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 94.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.435.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 90.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.435.6	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows:

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	40 CFR 63.9590(c); 40 CFR 63.9590(b)(1); 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (3); 40 CFR 63.9610(a); 40 CFR 63.9622(f); 40 CFR 63.9631(b); 40 CFR 63.9632(b)-(e); 40 CFR 63.9633; 40 CFR 63.9634(a), (e), & (j); 40 CFR 63.9636(a)(1) & (3); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.435.7	Pressure Drop $\geq$ 9.4 inches of water daily average (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.435.8	Water flow rate $\geq$ 240 gallons per minute daily average (Flow Rate Limit), unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.435.9	The Permittee shall calculate and record the daily average water flow rate at least once each operating day using the continuous monitor data. If the recorded flow rate is below the required limit, the emissions during that time shall be considered uncontrolled until the flow rate is once again above the required limit. The period of time for which the flow rate is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.435.10	The Permittee shall record the daily average pressure drop at least once each operating day using the continuous monitor data. If the recorded pressure drop is below the required limit, the emissions during that time shall be considered uncontrolled until the pressure drop is once again above the required limit. The period of time for which the pressure drop is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.435.11	Recordkeeping of Pressure Drop and Water Flow Rate: The Permittee shall maintain a continuous written record of the pressure drop and water flow rate readings. The permittee shall record the daily average pressure drop reading and water flow rate reading and whether or not the observed value was within the range specified in this permit. Recorded values outside any range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800,

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	subps. 4-5]
5.435.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded flow rate is below the required rate; - the recorded pressure drop is outside the required operating range; or - the scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop and/or water flow rate to within the permitted range(s), and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the Operation and Maintenance (O & M) Plan for the scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for each scrubber. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.435.13	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the wet scrubber. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.435.14	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the wet scrubber not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.435.15	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop and water flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation. [Minn. R. 7007.0800, subp. 4]
5.435.16	The Permittee shall calibrate or replace the pressure drop and flow rate monitors at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.435.17	The Permittee shall operate and maintain the scrubber in accordance with the O & M Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.435.18	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Pressure Drop Range Limit shall be reset as follows: - Using the CPMS, measure and record the pressure drop every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average pressure drop for each individual test run. - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is below the minimum value of the established range, the Pressure Drop Limit shall be reset as the lowest 1-hour average pressure drop corresponding to any of the three test runs.

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	Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B), Minn. R. 7017.2025]
5.435.19	Protocol for Resetting the Water Flow Rate Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Water Flow Rate Limit is to be reset, the reset shall be based on the water flow rate values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Flow Rate Limit shall be reset as follows: - Using the CPMS, measure and record the scrubber water flow rate every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average scrubber water flow rate for each individual test run. - if the 3-hour average water flow rate recorded during the test is above the established limit, it shall not be reset and the established value remains the Flow Rate Limit; or - if the 3-hour average water flow rate recorded during the test is lower than the current limit, the Flow Rate Limit shall be reset as the lowest 1-hour average water flow rate corresponding to any of the three test runs. The new Flow Rate Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.435.20	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
5.435.21	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit and Flow Rate Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
TREA 110	Line 5 Bentonite Day Bin Baghouse
5.436.1	The Permittee shall vent emissions from EQUI 27, EQUI 28, EQUI 29, EQUI 30, and EQUI 316 to TREA 110 whenever EQUI 27, EQUI 28, EQUI 29, EQUI 30, or EQUI 316 operates, and operate and maintain TREA 110 at all times that any emissions are vented to TREA 110. The Permittee shall document periods of non-operation of the control equipment TREA 110 whenever EQUI 27, EQUI 28, EQUI 29, EQUI 30, or EQUI 316 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.436.2	If the Permittee replaces TREA 110, the replacement control must meet or exceed the control efficiency requirements of TREA 110 as well as comply with all other requirements of TREA 110. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.436.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R.

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	7007.0800, subp. 2(A) & (B)]
5.436.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron $\geq$ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.436.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron $\geq$ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.436.6	Pressure Drop $\geq$ 0.5 and $\leq$ 8.0 inches of water, unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new range shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The range is final upon issuance of a permit amendment incorporating the change. If the recorded pressure drop is outside the required range, the emissions during that time must be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range must be reported as a deviation. The Permittee must record the pressure drop at least once every 24 hours when in operation. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.436.7	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.436.8	Pressure Drop: Recordkeeping. The Permittee shall record the time and date of each pressure drop reading and whether or not the recorded pressure drop was within the range specified in this permit. [Minn. R. 7007.0800, subps. 4-5]
5.436.9	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.436.10	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.436.11	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.436.12	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.436.13	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be

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	separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
TREA 111	Line 5 Bentonite Blending Baghouse
5.437.1	The Permittee shall vent emissions from TREA 111 to EQUI 31, EQUI 32, EQUI 33, EQUI 34, and EQUI 35 whenever EQUI 31, EQUI 32, EQUI 33, EQUI 34, or EQUI 35 operates, and operate and maintain TREA 111 at all times that any emissions are vented to TREA 111. The Permittee shall document periods of non-operation of the control equipment TREA 111 whenever TREA EQUI 31, EQUI 32, EQUI 33, EQUI 34, or EQUI 35 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.437.2	If the Permittee replaces TREA 111, the replacement control must meet or exceed the control efficiency requirements of TREA 111 as well as comply with all other requirements of TREA 111. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.437.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.437.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.437.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.437.6	Pressure Drop ≥ 0.5 and ≤ 8.0 inches of water, unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new range shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The range is final upon issuance of a permit amendment incorporating the change. If the recorded pressure drop is outside the required range, the emissions during that time must be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range must be reported as a deviation. The Permittee must record the pressure drop at least once every 24 hours when in operation. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.437.7	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.437.8	Pressure Drop: Recordkeeping. The Permittee shall record the time and date of each pressure drop reading and whether or not the recorded pressure drop was within the range specified in this permit.

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	[Minn. R. 7007.0800, subps. 4-5]
5.437.9	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.437.10	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.437.11	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.437.12	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.437.13	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
TREA 112	Agglomerator II Line 5 Grate Feed Scrubber
5.438.1	The Permittee shall vent emissions from EQUI 36 to TREA 112 whenever EQUI 36 operates, and operate and maintain TREA 112 at all times that any emissions are vented to TREA 112. The Permittee shall document periods of non-operation of the control equipment TREA 112 whenever EQUI 36 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.438.2	If the Permittee replaces TREA 112, the replacement control must meet or exceed the control efficiency requirements of TREA 112 as well as comply with all other requirements of TREA 112. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.438.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 95.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.438.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 94.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.438.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 90.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.438.6	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows:

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	40 CFR 63.9590(c); 40 CFR 63.9590(b)(1); 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (3); 40 CFR 63.9610(a); 40 CFR 63.9622(f); 40 CFR 63.9631(b); 40 CFR 63.9632(b)-(e); 40 CFR 63.9633; 40 CFR 63.9634(a), (e), & (j); 40 CFR 63.9636(a)(1) & (3); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.438.7	Pressure Drop $\geq$ 3.2 inches of water daily average (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.438.8	Water flow rate $\geq$ 42.0 gallons per minute daily average (Flow Rate Limit), unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.438.9	The Permittee shall calculate and record the daily average water flow rate at least once each operating day using the continuous monitor data. If the recorded flow rate is below the required limit, the emissions during that time shall be considered uncontrolled until the flow rate is once again above the required limit. The period of time for which the flow rate is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.438.10	The Permittee shall record the daily average pressure drop at least once each operating day using the continuous monitor data. If the recorded pressure drop is below the required limit, the emissions during that time shall be considered uncontrolled until the pressure drop is once again above the required limit. The period of time for which the pressure drop is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.438.11	Recordkeeping of Pressure Drop and Water Flow Rate: The Permittee shall maintain a continuous written record of the pressure drop and water flow rate readings. The permittee shall record the daily average pressure drop reading and water flow rate reading and whether or not the observed value was within the range specified in this permit. Recorded values outside any range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subps. 4-5]

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5.438.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded flow rate is below the required rate; - the recorded pressure drop is outside the required operating range; or - the scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop and/or water flow rate to within the permitted range(s), and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the Operation and Maintenance (O & M) Plan for the scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for each scrubber. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.438.13	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the wet scrubber. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.438.14	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the wet scrubber not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.438.15	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop and water flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation. [Minn. R. 7007.0800, subp. 4]
5.438.16	The Permittee shall calibrate or replace the pressure drop and flow rate monitors at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.438.17	The Permittee shall operate and maintain the scrubber in accordance with the O & M Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.438.18	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Pressure Drop Range Limit shall be reset as follows: - Using the CPMS, measure and record the pressure drop every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average pressure drop for each individual test run. - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is below the minimum value of the established range, the Pressure Drop Limit shall be reset as the lowest 1-hour average pressure drop corresponding to any of the three test runs. Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data

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	acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B), Minn. R. 7017.2025]
5.438.19	Protocol for Resetting the Water Flow Rate Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Water Flow Rate Limit is to be reset, the reset shall be based on the water flow rate values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Flow Rate Limit shall be reset as follows: - Using the CPMS, measure and record the scrubber water flow rate every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average scrubber water flow rate for each individual test run. - if the 3-hour average water flow rate recorded during the test is above the established limit, it shall not be reset and the established value remains the Flow Rate Limit; or - if the 3-hour average water flow rate recorded during the test is lower than the current limit, the Flow Rate Limit shall be reset as the lowest 1-hour average water flow rate corresponding to any of the three test runs. The new Flow Rate Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.438.20	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
5.438.21	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit and Flow Rate Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
TREA 113	Agglomerator II Line 5 Grate Discharge Scrubber
5.439.1	The Permittee shall vent emissions from EQUI 37 and EQUI 368 to TREA 113 whenever EQUI 37 or EQUI 368 operates, and operate and maintain TREA 113 at all times that any emissions are vented to TREA 113. The Permittee shall document periods of non-operation of the control equipment TREA 113 whenever EQUI 37 or EQUI 368 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.439.2	If the Permittee replaces TREA 113, the replacement control must meet or exceed the control efficiency requirements of TREA 113 as well as comply with all other requirements of TREA 113. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.439.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 95.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]

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5.439.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron $\geq$ 94.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.439.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron $\geq$ 90.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.439.6	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9590(c); 40 CFR 63.9590(b)(1); 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (3); 40 CFR 63.9610(a); 40 CFR 63.9622(f); 40 CFR 63.9631(b); 40 CFR 63.9632(b)-(e); 40 CFR 63.9633; 40 CFR 63.9634(a), (e), & (j); 40 CFR 63.9636(a)(1) & (3); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.439.7	Pressure Drop $\geq$ 3.2 inches of water daily average (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.439.8	Water flow rate $\geq$ 42.0 gallons per minute daily average (Flow Rate Limit), unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.439.9	The Permittee shall calculate and record the daily average water flow rate at least once each operating day using the continuous monitor data. If the recorded flow rate is below the required limit, the emissions during that time shall be considered uncontrolled until the flow rate is once again above the required limit. The period of time for which the flow rate is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.439.10	The Permittee shall record the daily average pressure drop at least once each operating day using the continuous monitor data. If the recorded pressure drop is below the required limit, the emissions during that time shall be considered uncontrolled until the pressure drop is once again above the

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	required limit. The period of time for which the pressure drop is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.439.11	Recordkeeping of Pressure Drop and Water Flow Rate: The Permittee shall maintain a continuous written record of the pressure drop and water flow rate readings. The permittee shall record the daily average pressure drop reading and water flow rate reading and whether or not the observed value was within the range specified in this permit. Recorded values outside any range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subps. 4-5]
5.439.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded flow rate is below the required rate; - the recorded pressure drop is outside the required operating range; or - the scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop and/or water flow rate to within the permitted range(s), and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the Operation and Maintenance (O & M) Plan for the scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for each scrubber. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.439.13	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the wet scrubber. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.439.14	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the wet scrubber not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.439.15	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop and water flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation. [Minn. R. 7007.0800, subp. 4]
5.439.16	The Permittee shall calibrate or replace the pressure drop and flow rate monitors at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.439.17	The Permittee shall operate and maintain the scrubber in accordance with the O & M Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.439.18	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Pressure Drop Range Limit shall be reset as follows: - Using the CPMS, measure and record the pressure drop every 15 minutes during each run of the

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	particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average pressure drop for each individual test run. - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is below the minimum value of the established range, the Pressure Drop Limit shall be reset as the lowest 1-hour average pressure drop corresponding to any of the three test runs. Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B), Minn. R. 7017.2025]
5.439.19	Protocol for Resetting the Water Flow Rate Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Water Flow Rate Limit is to be reset, the reset shall be based on the water flow rate values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Flow Rate Limit shall be reset as follows: - Using the CPMS, measure and record the scrubber water flow rate every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average scrubber water flow rate for each individual test run. - if the 3-hour average water flow rate recorded during the test is above the established limit, it shall not be reset and the established value remains the Flow Rate Limit; or - if the 3-hour average water flow rate recorded during the test is lower than the current limit, the Flow Rate Limit shall be reset as the lowest 1-hour average water flow rate corresponding to any of the three test runs. The new Flow Rate Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.439.20	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
5.439.21	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit and Flow Rate Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
TREA 115	Step I Coarse Crusher Baghouse
5.440.1	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (2); 40 CFR 63.9610(a); 40 CFR 63.9631(a) (bag leak detection system required); 40 CFR 63.9631(a)(1)-(6) & (8);

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	40 CFR 63.9632(a); 40 CFR 63.9633; 40 CFR 63.9634(a) & (d); 40 CFR 63.9636(a)(1) & (2); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.440.2	The Permittee shall vent emissions from EQUI 47 to TREA 115 whenever EQUI 47 operates, and operate and maintain TREA 115 at all times that any emissions are vented to TREA 115. The Permittee shall document periods of non-operation of the control equipment TREA 115 whenever EQUI 47 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.440.3	If the Permittee replaces TREA 115, the replacement control must meet or exceed the control efficiency requirements of TREA 115 as well as comply with all other requirements of TREA 115. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.440.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.440.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.440.6	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.440.7	The Permittee shall operate and maintain a bag leak detector at all times that the fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan. [Minn. R. 7007.0800, subp. (14), Minn. R. 7007.0800, subp. 2(A) & (B)]
5.440.8	Pressure Drop ≥ 3.0 and ≤ 12.0 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. The Permittee shall record the pressure drop at least once every 24 hours when in operation. [40 CFR

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	63.9631(a)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.440.9	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.440.10	Pressure Drop Daily Inspections and Recordkeeping: At least once each operating day, the Permittee must read and record the pressure drop across the cartridge filter. The Permittee must record the time and date of each pressure drop reading and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5]
5.440.11	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the alarm for the bag leak detector is triggered; or - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions must determine and correct the cause of the bag leak detector alarm, return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.440.12	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.440.13	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.440.14	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.440.15	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.440.16	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time.

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	The established Pressure Drop Range Limit shall be reset as follows: - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.440.17	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.440.18	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
TREA 116	Step II Coarse Crusher Baghouse
5.441.1	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (2); 40 CFR 63.9610(a); 40 CFR 63.9631(a) (bag leak detection system required); 40 CFR 63.9631(a)(1)-(6) & (8); 40 CFR 63.9632(a); 40 CFR 63.9633; 40 CFR 63.9634(a) & (d); 40 CFR 63.9636(a)(1) & (2); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]

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5.441.2	The Permittee shall vent emissions from EQUI 72 and EQUI 73 to TREA 116 whenever EQUI 72 or EQUI 73 operates, and operate and maintain TREA 116 at all times that any emissions are vented to TREA 116. The Permittee shall document periods of non-operation of the control equipment TREA 116 whenever EQUI 72 or EQUI 73 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.441.3	If the Permittee replaces TREA 116, the replacement control must meet or exceed the control efficiency requirements of TREA 116 as well as comply with all other requirements of TREA 116. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.441.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.441.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.441.6	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.441.7	The Permittee shall operate and maintain a bag leak detector at all times that the fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan. [Minn. R. 7007.0800, subp. (14), Minn. R. 7007.0800, subp. 2(A) & (B)]
5.441.8	Pressure Drop ≥ 3.0 and ≤ 12.0 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. The Permittee shall record the pressure drop at least once every 24 hours when in operation. [40 CFR 63.9631(a)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.441.9	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.441.10	Pressure Drop Daily Inspections and Recordkeeping: At least once each operating day, the Permittee must read and record the pressure drop across the cartridge filter. The Permittee must record the time and date of each pressure drop reading and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5]
5.441.11	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the alarm for the bag leak detector is triggered; or - the recorded pressure drop is outside the required operating range; or

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	- the fabric filter or any of its components are found during the inspections to need repair. Corrective actions must determine and correct the cause of the bag leak detector alarm, return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.441.12	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.441.13	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.441.14	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.441.15	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.441.16	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time. The established Pressure Drop Range Limit shall be reset as follows: - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]

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5.441.17	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.441.18	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
TREA 117	Step III Coarse Crusher Baghouse
5.442.1	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (2); 40 CFR 63.9610(a); 40 CFR 63.9631(a) (bag leak detection system required); 40 CFR 63.9631(a)(1)-(6) & (8); 40 CFR 63.9632(a); 40 CFR 63.9633; 40 CFR 63.9634(a) & (d); 40 CFR 63.9636(a)(1) & (2); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.442.2	The Permittee shall vent emissions from EQUI 48 to TREA 117 whenever EQUI 48 operates, and operate and maintain TREA 117 at all times that any emissions are vented to TREA 117. The Permittee shall document periods of non-operation of the control equipment TREA 117 whenever EQUI 48 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.442.3	If the Permittee replaces TREA 117, the replacement control must meet or exceed the control efficiency requirements of TREA 117 as well as comply with all other requirements of TREA 117. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.442.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter $\geq$ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]

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5.442.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron $\geq$ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.442.6	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron $\geq$ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.442.7	The Permittee shall operate and maintain a bag leak detector at all times that the fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan. [Minn. R. 7007.0800, subp. (14), Minn. R. 7007.0800, subp. 2(A) & (B)]
5.442.8	Pressure Drop $\geq$ 3.0 and $\leq$ 12.0 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. The Permittee shall record the pressure drop at least once every 24 hours when in operation. [40 CFR 63.9631(a)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.442.9	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.442.10	Pressure Drop Daily Inspections and Recordkeeping: At least once each operating day, the Permittee must read and record the pressure drop across the cartridge filter. The Permittee must record the time and date of each pressure drop reading and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5]
5.442.11	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the alarm for the bag leak detector is triggered; or - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions must determine and correct the cause of the bag leak detector alarm, return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.442.12	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.442.13	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.442.14	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions

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	taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.442.15	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.442.16	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time. The established Pressure Drop Range Limit shall be reset as follows: - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.442.17	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.442.18	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
TREA 120	Step III Coarse Crusher Pan Feeders Scrubber
5.443.1	The Permittee shall vent emissions from TREA 281 and EQUI 375 to TREA 120 whenever TREA 120 operates, and operate and maintain TREA 120 at all times that any emissions are vented to TREA 120. The Permittee shall document periods of non-operation of the control equipment TREA 120 whenever TREA 281 or EQUI 375 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.443.2	If the Permittee replaces TREA 120, the replacement control must meet or exceed the control efficiency requirements of TREA 120 as well as comply with all other requirements of TREA 120. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit

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	amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.443.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter $\geq$ 96.9 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.443.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron $\geq$ 94.9 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.443.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron $\geq$ 90.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.443.6	Pressure Drop $\geq$ 11.2 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.443.7	Water flow rate $\geq$ 144 gallons per minute (Water Flow Rate Limit), unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.443.8	The Permittee shall calculate and record the daily average water flow rate at least once each operating day using the continuous monitor data. If the recorded flow rate is below the required limit, the emissions during that time shall be considered uncontrolled until the flow rate is once again above the required limit. The period of time for which the flow rate is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.443.9	The Permittee shall record the daily average pressure drop at least once each operating day using the continuous monitor data. If the recorded pressure drop is below the required limit, the emissions during that time shall be considered uncontrolled until the pressure drop is once again above the required limit. The period of time for which the pressure drop is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.443.10	Recordkeeping of Pressure Drop and Water Flow Rate: The Permittee shall maintain a continuous written record of the pressure drop and water flow rate readings. The permittee shall record the daily average pressure drop reading and water flow rate reading and whether or not the observed value was within the range specified in this permit. Recorded values outside any range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subps. 4-5]
5.443.11	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded flow rate is below the required rate; - the recorded pressure drop is outside the required operating range; or - the scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop and/or water flow rate to within the permitted range(s), and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the Operation and Maintenance (O & M) Plan for the scrubber. The Permittee shall keep a record of the type and date of

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	any corrective action taken for each scrubber. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.443.12	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the wet scrubber. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.443.13	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the wet scrubber not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.443.14	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop and water flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation. [Minn. R. 7007.0800, subp. 4]
5.443.15	The Permittee shall calibrate or replace the pressure drop and flow rate monitors at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.443.16	The Permittee shall operate and maintain the scrubber in accordance with the O & M Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.443.17	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Pressure Drop Range Limit shall be reset as follows: - Using the CPMS, measure and record the pressure drop every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average pressure drop for each individual test run. - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is below the minimum value of the established range, the Pressure Drop Limit shall be reset as the lowest 1-hour average pressure drop corresponding to any of the three test runs. Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B), Minn. R. 7017.2025]
5.443.18	Protocol for Resetting the Water Flow Rate Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Water Flow Rate Limit is to be reset, the reset shall be based on the water flow rate values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Flow Rate Limit shall be reset as follows:

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	- Using the CPMS, measure and record the scrubber water flow rate every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average scrubber water flow rate for each individual test run. - if the 3-hour average water flow rate recorded during the test is above the established limit, it shall not be reset and the established value remains the Flow Rate Limit; or - if the 3-hour average water flow rate recorded during the test is lower than the current limit, the Flow Rate Limit shall be reset as the lowest 1-hour average water flow rate corresponding to any of the three test runs. The new Flow Rate Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.443.19	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
5.443.20	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit and Flow Rate Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
TREA 121	Step III Coarse Crusher Pan Feeders Scrubber
5.444.1	The Permittee shall vent emissions from EQUI 281 and EQUI 375 to TREA 121 whenever EQUI 281 or EQUI 375 operates, and operate and maintain TREA 121 at all times that any emissions are vented to TREA 121. The Permittee shall document periods of non-operation of the control equipment TREA 121 whenever EQUI 281 or EQUI 375 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.444.2	If the Permittee replaces TREA 121, the replacement control must meet or exceed the control efficiency requirements of TREA 121 as well as comply with all other requirements of TREA 121. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.444.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 96.9 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.444.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 94.9 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.444.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 90.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.444.6	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9590(c);

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	40 CFR 63.9590(b)(1); 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (3); 40 CFR 63.9610(a); 40 CFR 63.9622(f); 40 CFR 63.9631(b); 40 CFR 63.9632(b)-(e); 40 CFR 63.9633; 40 CFR 63.9634(a), (e), & (j); 40 CFR 63.9636(a)(1) & (3); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.444.7	Pressure Drop $\geq$ 4.9 inches of water daily average (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.444.8	Water flow rate $\geq$ 22.0 gallons per minute daily average (Flow Rate Limit), unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.444.9	The Permittee shall calculate and record the daily average water flow rate at least once each operating day using the continuous monitor data. If the recorded flow rate is below the required limit, the emissions during that time shall be considered uncontrolled until the flow rate is once again above the required limit. The period of time for which the flow rate is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.444.10	The Permittee shall record the daily average pressure drop at least once each operating day using the continuous monitor data. If the recorded pressure drop is below the required limit, the emissions during that time shall be considered uncontrolled until the pressure drop is once again above the required limit. The period of time for which the pressure drop is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.444.11	Recordkeeping of Pressure Drop and Water Flow Rate: The Permittee shall maintain a continuous written record of the pressure drop and water flow rate readings. The permittee shall record the daily average pressure drop reading and water flow rate reading and whether or not the observed value was within the range specified in this permit. Recorded values outside any range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subps. 4-5]
5.444.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the

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	following occur: - the recorded flow rate is below the required rate; - the recorded pressure drop is outside the required operating range; or - the scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop and/or water flow rate to within the permitted range(s), and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the Operation and Maintenance (O & M) Plan for the scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for each scrubber. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.444.13	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the wet scrubber. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.444.14	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the wet scrubber not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.444.15	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop and water flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation. [Minn. R. 7007.0800, subp. 4]
5.444.16	The Permittee shall calibrate or replace the pressure drop and flow rate monitors at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.444.17	The Permittee shall operate and maintain the scrubber in accordance with the O & M Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.444.18	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Pressure Drop Range Limit shall be reset as follows: - Using the CPMS, measure and record the pressure drop every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average pressure drop for each individual test run. - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is below the minimum value of the established range, the Pressure Drop Limit shall be reset as the lowest 1-hour average pressure drop corresponding to any of the three test runs. Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range

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	Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B), Minn. R. 7017.2025]
5.444.19	Protocol for Resetting the Water Flow Rate Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Water Flow Rate Limit is to be reset, the reset shall be based on the water flow rate values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Flow Rate Limit shall be reset as follows: - Using the CPMS, measure and record the scrubber water flow rate every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average scrubber water flow rate for each individual test run. - if the 3-hour average water flow rate recorded during the test is above the established limit, it shall not be reset and the established value remains the Flow Rate Limit; or - if the 3-hour average water flow rate recorded during the test is lower than the current limit, the Flow Rate Limit shall be reset as the lowest 1-hour average water flow rate corresponding to any of the three test runs. The new Flow Rate Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.444.20	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
5.444.21	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit and Flow Rate Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
TREA 126	Transfer House Conveyor Transfer Scrubber
5.445.1	The Permittee shall vent emissions from EQUI 324 to TREA 126 whenever EQUI 324 operates, and operate and maintain TREA 126 at all times that any emissions are vented to TREA 126. The Permittee shall document periods of non-operation of the control equipment TRA 126 whenever EQUI 324 is operating. Note: TREA 244 will replace TREA 126. Prior to the startup and operation of TREA 244, the Permittee shall follow the requirements for TREA 126. After the startup and operation of TREA 244, TREA 126 shall be shut down, and the Permittee shall follow requirements for TREA 244 instead of TREA 126. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.445.2	If the Permittee replaces TREA 126, the replacement control must meet or exceed the control efficiency requirements of TREA 126 as well as comply with all other requirements of TREA 126. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.445.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency

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	for Particulate Matter ≥ 96.9 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.445.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 94.9 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.445.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 90.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.445.6	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9590(c); 40 CFR 63.9590(b)(1); 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (3); 40 CFR 63.9610(a); 40 CFR 63.9622(f); 40 CFR 63.9631(b); 40 CFR 63.9632(b)-(e); 40 CFR 63.9633; 40 CFR 63.9634(a), (e), & (j); 40 CFR 63.9636(a)(1) & (3); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.445.7	Pressure Drop ≥ 2.4 inches of water daily average (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.445.8	Water flow rate ≥ 18.4 gallons per minute daily average (Flow Rate Limit), unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.445.9	The Permittee shall calculate and record the daily average water flow rate at least once each operating day using the continuous monitor data. If the recorded flow rate is below the required limit, the emissions during that time shall be considered uncontrolled until the flow rate is once again above the required limit. The period of time for which the flow rate is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.445.10	The Permittee shall record the daily average pressure drop at least once each operating day using the

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	continuous monitor data. If the recorded pressure drop is below the required limit, the emissions during that time shall be considered uncontrolled until the pressure drop is once again above the required limit. The period of time for which the pressure drop is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.445.11	Recordkeeping of Pressure Drop and Water Flow Rate: The Permittee shall maintain a continuous written record of the pressure drop and water flow rate readings. The permittee shall record the daily average pressure drop reading and water flow rate reading and whether or not the observed value was within the range specified in this permit. Recorded values outside any range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subps. 4-5]
5.445.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded flow rate is below the required rate; - the recorded pressure drop is outside the required operating range; or - the scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop and/or water flow rate to within the permitted range(s), and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the Operation and Maintenance (O & M) Plan for the scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for each scrubber. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.445.13	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the wet scrubber. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.445.14	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the wet scrubber not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.445.15	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop and water flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation. [Minn. R. 7007.0800, subp. 4]
5.445.16	The Permittee shall calibrate or replace the pressure drop and flow rate monitors at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.445.17	The Permittee shall operate and maintain the scrubber in accordance with the O & M Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.445.18	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated.

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	The established Pressure Drop Range Limit shall be reset as follows: - Using the CPMS, measure and record the pressure drop every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average pressure drop for each individual test run. - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is below the minimum value of the established range, the Pressure Drop Limit shall be reset as the lowest 1-hour average pressure drop corresponding to any of the three test runs. Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B), Minn. R. 7017.2025]
5.445.19	Protocol for Resetting the Water Flow Rate Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Water Flow Rate Limit is to be reset, the reset shall be based on the water flow rate values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Flow Rate Limit shall be reset as follows: - Using the CPMS, measure and record the scrubber water flow rate every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average scrubber water flow rate for each individual test run. - if the 3-hour average water flow rate recorded during the test is above the established limit, it shall not be reset and the established value remains the Flow Rate Limit; or - if the 3-hour average water flow rate recorded during the test is lower than the current limit, the Flow Rate Limit shall be reset as the lowest 1-hour average water flow rate corresponding to any of the three test runs. The new Flow Rate Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.445.20	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
5.445.21	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit and Flow Rate Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
TREA 127	Surge Pile/Reclaim Scrubber
5.446.1	The Permittee shall vent emissions from EQUI 325 to TREA 127 whenever EQUI 325 operates, and operate and maintain TREA 127 at all times that any emissions are vented to TREA 127. The Permittee shall document periods of non-operation of the control equipment TREA 127 whenever EQUI 325 is operating. Note: TREA 236 will replace TREA 127. Prior to the startup and operation of TREA 236, the Permittee

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	shall follow the requirements for TREA 127. After the startup and operation of TREA 236, TREA 127 shall be shut down, and the Permittee shall follow requirements for TREA 236 instead of TREA 127. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.446.2	If the Permittee replaces TREA 127, the replacement control must meet or exceed the control efficiency requirements of TREA 127 as well as comply with all other requirements of TREA 127. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.446.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 95.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.446.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 94.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.446.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 90.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.446.6	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9590(c); 40 CFR 63.9590(b)(1); 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (3); 40 CFR 63.9610(a); 40 CFR 63.9622(f); 40 CFR 63.9631(b); 40 CFR 63.9632(b)-(e); 40 CFR 63.9633; 40 CFR 63.9634(a), (e), & (j); 40 CFR 63.9636(a)(1) & (3); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.446.7	Pressure Drop ≥ 2.4 inches of water daily average (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR

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	63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.446.8	Water flow rate $\geq$ 18.4 gallons per minute daily average (Flow Rate Limit), unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.446.9	The Permittee shall calculate and record the daily average water flow rate at least once each operating day using the continuous monitor data. If the recorded flow rate is below the required limit, the emissions during that time shall be considered uncontrolled until the flow rate is once again above the required limit. The period of time for which the flow rate is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.446.10	The Permittee shall record the daily average pressure drop at least once each operating day using the continuous monitor data. If the recorded pressure drop is below the required limit, the emissions during that time shall be considered uncontrolled until the pressure drop is once again above the required limit. The period of time for which the pressure drop is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.446.11	Recordkeeping of Pressure Drop and Water Flow Rate: The Permittee shall maintain a continuous written record of the pressure drop and water flow rate readings. The permittee shall record the daily average pressure drop reading and water flow rate reading and whether or not the observed value was within the range specified in this permit. Recorded values outside any range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subps. 4-5]
5.446.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded flow rate is below the required rate; - the recorded pressure drop is outside the required operating range; or - the scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop and/or water flow rate to within the permitted range(s), and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the Operation and Maintenance (O & M) Plan for the scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for each scrubber. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.446.13	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the wet scrubber. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.446.14	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the wet scrubber not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.446.15	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop and water flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored

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	scrubber is in operation. [Minn. R. 7007.0800, subp. 4]
5.446.16	The Permittee shall calibrate or replace the pressure drop and flow rate monitors at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.446.17	The Permittee shall operate and maintain the scrubber in accordance with the O & M Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.446.18	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Pressure Drop Range Limit shall be reset as follows: - Using the CPMS, measure and record the pressure drop every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average pressure drop for each individual test run. - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is below the minimum value of the established range, the Pressure Drop Limit shall be reset as the lowest 1-hour average pressure drop corresponding to any of the three test runs. Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B), Minn. R. 7017.2025]
5.446.19	Protocol for Resetting the Water Flow Rate Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Water Flow Rate Limit is to be reset, the reset shall be based on the water flow rate values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Flow Rate Limit shall be reset as follows: - Using the CPMS, measure and record the scrubber water flow rate every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average scrubber water flow rate for each individual test run. - if the 3-hour average water flow rate recorded during the test is above the established limit, it shall not be reset and the established value remains the Flow Rate Limit; or - if the 3-hour average water flow rate recorded during the test is lower than the current limit, the Flow Rate Limit shall be reset as the lowest 1-hour average water flow rate corresponding to any of the three test runs. The new Flow Rate Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.446.20	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall

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	be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
5.446.21	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit and Flow Rate Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
TREA 130	Line 7 Bentonite Day Bin Baghouse
5.447.1	The Permittee shall vent emissions from EQUI 98, EQUI 99, and EQUI 100 to TREA 130 whenever EQUI 98, EQUI 99, or EQUI 100 operates, and operate and maintain TREA 130 at all times that any emissions are vented to TREA 130. The Permittee shall document periods of non-operation of the control equipment TREA 130 whenever EQUI 98, EQUI 99, or EQUI 100 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.447.2	If the Permittee replaces TREA 130, the replacement control must meet or exceed the control efficiency requirements of TREA 130 as well as comply with all other requirements of TREA 130. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.447.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.447.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.447.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 93 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.447.6	Pressure Drop ≥ 0.5 and ≤ 8.0 inches of water, unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new range shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The range is final upon issuance of a permit amendment incorporating the change. If the recorded pressure drop is outside the required range, the emissions during that time must be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range must be reported as a deviation. The Permittee must record the pressure drop at least once every 24 hours when in operation. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.447.7	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R.

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	7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.447.8	Pressure Drop: Recordkeeping. The Permittee shall record the time and date of each pressure drop reading and whether or not the recorded pressure drop was within the range specified in this permit. [Minn. R. 7007.0800, subps. 4-5]
5.447.9	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.447.10	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.447.11	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.447.12	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.447.13	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
TREA 132	Line 5 Pellet Cooler Discharge Scrubber
5.448.1	The Permittee shall vent emissions from EQUI 272 to TREA 132 whenever EQUI 272 operates, and operate and maintain TREA 132 at all times that any emissions are vented to TREA 132. The Permittee shall document periods of non-operation of the control equipment TREA 132 whenever EQUI 272 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.448.2	If the Permittee replaces TREA 132, the replacement control must meet or exceed the control efficiency requirements of TREA 132 as well as comply with all other requirements of TREA 132. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.448.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 95.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.448.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 94.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.448.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 90.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]

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5.448.6	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9590(c); 40 CFR 63.9590(b)(1); 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (3); 40 CFR 63.9610(a); 40 CFR 63.9622(f); 40 CFR 63.9631(b); 40 CFR 63.9632(b)-(e); 40 CFR 63.9633; 40 CFR 63.9634(a), (e), & (j); 40 CFR 63.9636(a)(1) & (3); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.448.7	Pressure Drop $\geq$ 1.7 inches of water daily average (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.448.8	Water flow rate $\geq$ 31.0 gallons per minute daily average (Flow Rate Limit), unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.448.9	The Permittee shall calculate and record the daily average water flow rate at least once each operating day using the continuous monitor data. If the recorded flow rate is below the required limit, the emissions during that time shall be considered uncontrolled until the flow rate is once again above the required limit. The period of time for which the flow rate is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.448.10	The Permittee shall record the daily average pressure drop at least once each operating day using the continuous monitor data. If the recorded pressure drop is below the required limit, the emissions during that time shall be considered uncontrolled until the pressure drop is once again above the required limit. The period of time for which the pressure drop is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.448.11	Recordkeeping of Pressure Drop and Water Flow Rate: The Permittee shall maintain a continuous written record of the pressure drop and water flow rate readings. The permittee shall record the daily average pressure drop reading and water flow rate reading and whether or not the observed value

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	was within the range specified in this permit. Recorded values outside any range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subps. 4-5]
5.448.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded flow rate is below the required rate; - the recorded pressure drop is outside the required operating range; or - the scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop and/or water flow rate to within the permitted range(s), and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the Operation and Maintenance (O & M) Plan for the scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for each scrubber. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.448.13	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the wet scrubber. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.448.14	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the wet scrubber not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.448.15	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop and water flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation. [Minn. R. 7007.0800, subp. 4]
5.448.16	The Permittee shall calibrate or replace the pressure drop and flow rate monitors at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.448.17	The Permittee shall operate and maintain the scrubber in accordance with the O & M Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.448.18	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Pressure Drop Range Limit shall be reset as follows: - Using the CPMS, measure and record the pressure drop every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average pressure drop for each individual test run. - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is below the minimum value of the established range, the Pressure Drop Limit shall be reset as the lowest 1-hour average pressure drop corresponding to any of

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	the three test runs. Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B), Minn. R. 7017.2025]
5.448.19	Protocol for Resetting the Water Flow Rate Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Water Flow Rate Limit is to be reset, the reset shall be based on the water flow rate values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Flow Rate Limit shall be reset as follows: - Using the CPMS, measure and record the scrubber water flow rate every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average scrubber water flow rate for each individual test run. - if the 3-hour average water flow rate recorded during the test is above the established limit, it shall not be reset and the established value remains the Flow Rate Limit; or - if the 3-hour average water flow rate recorded during the test is lower than the current limit, the Flow Rate Limit shall be reset as the lowest 1-hour average water flow rate corresponding to any of the three test runs. The new Flow Rate Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.448.20	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
5.448.21	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit and Flow Rate Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
TREA 133	41, 46 Conveyor Transfer Scrubber
5.449.1	The Permittee shall vent emissions from EQUI 81, EQUI 82, EQUI 272, and EQUI 273 to TREA 133 whenever EQUI 81, EQUI 82, EQUI 272, and EQUI 273 operate, and operate and maintain TREA 133 at all times that any emissions are vented to TREA 133. The Permittee shall document periods of non-operation of the control equipment TREA 133 whenever EQUI 81, EQUI 82, EQUI 272, or EQUI 273 are operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.449.2	If the Permittee replaces TREA 133, the replacement control must meet or exceed the control efficiency requirements of TREA 133 as well as comply with all other requirements of TREA 133. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.449.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency

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	for Particulate Matter ≥ 95.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.449.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 94.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.449.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 90.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.449.6	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9590(c); 40 CFR 63.9590(b)(1); 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (3); 40 CFR 63.9610(a); 40 CFR 63.9622(f); 40 CFR 63.9631(b); 40 CFR 63.9632(b)-(e); 40 CFR 63.9633; 40 CFR 63.9634(a), (e), & (j); 40 CFR 63.9636(a)(1) & (3); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.449.7	Pressure Drop ≥ 9.4 inches of water daily average (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.449.8	Water flow rate ≥ 240 gallons per minute daily average (Flow Rate Limit), unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.449.9	The Permittee shall calculate and record the daily average water flow rate at least once each operating day using the continuous monitor data. If the recorded flow rate is below the required limit, the emissions during that time shall be considered uncontrolled until the flow rate is once again above the required limit. The period of time for which the flow rate is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.449.10	The Permittee shall record the daily average pressure drop at least once each operating day using the

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	continuous monitor data. If the recorded pressure drop is below the required limit, the emissions during that time shall be considered uncontrolled until the pressure drop is once again above the required limit. The period of time for which the pressure drop is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.449.11	Recordkeeping of Pressure Drop and Water Flow Rate: The Permittee shall maintain a continuous written record of the pressure drop and water flow rate readings. The permittee shall record the daily average pressure drop reading and water flow rate reading and whether or not the observed value was within the range specified in this permit. Recorded values outside any range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subps. 4-5]
5.449.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded flow rate is below the required rate; - the recorded pressure drop is outside the required operating range; or - the scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop and/or water flow rate to within the permitted range(s), and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the Operation and Maintenance (O & M) Plan for the scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for each scrubber. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.449.13	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the wet scrubber. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.449.14	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the wet scrubber not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.449.15	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop and water flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation. [Minn. R. 7007.0800, subp. 4]
5.449.16	The Permittee shall calibrate or replace the pressure drop and flow rate monitors at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.449.17	The Permittee shall operate and maintain the scrubber in accordance with the O & M Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.449.18	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated.

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	The established Pressure Drop Range Limit shall be reset as follows: - Using the CPMS, measure and record the pressure drop every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average pressure drop for each individual test run. - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is below the minimum value of the established range, the Pressure Drop Limit shall be reset as the lowest 1-hour average pressure drop corresponding to any of the three test runs. Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B), Minn. R. 7017.2025]
5.449.19	Protocol for Resetting the Water Flow Rate Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Water Flow Rate Limit is to be reset, the reset shall be based on the water flow rate values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Flow Rate Limit shall be reset as follows: - Using the CPMS, measure and record the scrubber water flow rate every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average scrubber water flow rate for each individual test run. - if the 3-hour average water flow rate recorded during the test is above the established limit, it shall not be reset and the established value remains the Flow Rate Limit; or - if the 3-hour average water flow rate recorded during the test is lower than the current limit, the Flow Rate Limit shall be reset as the lowest 1-hour average water flow rate corresponding to any of the three test runs. The new Flow Rate Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.449.20	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
5.449.21	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit and Flow Rate Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
TREA 134	Agglomerator III S3 Conveyor Transfer Scrubber
5.450.1	The Permittee shall vent emissions from EQUI 87 and EQUI 164 to TREA 134 whenever EQUI 87 or EQUI 164 operates, and operate and maintain TREA 134 at all times that any emissions are vented to TREA 134. The Permittee shall document periods of non-operation of the control equipment TREA 134 whenever EQUI 87 or EQUI 164 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.450.2	If the Permittee replaces TREA 134, the replacement control must meet or exceed the control

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	efficiency requirements of TREA 134 as well as comply with all other requirements of TREA 134. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.450.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 95.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.450.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 94.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.450.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 30.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.450.6	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9590(c); 40 CFR 63.9590(b)(1); 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (3); 40 CFR 63.9610(a); 40 CFR 63.9622(f); 40 CFR 63.9631(b); 40 CFR 63.9632(b)-(e); 40 CFR 63.9633; 40 CFR 63.9634(a), (e), & (j); 40 CFR 63.9636(a)(1) & (3); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.450.7	Pressure Drop ≥ 3.0 inches of water daily average (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.450.8	Water flow rate ≥ 33.0 gallons per minute daily average (Flow Rate Limit), unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR

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	63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.450.9	The Permittee shall calculate and record the daily average water flow rate at least once each operating day using the continuous monitor data. If the recorded flow rate is below the required limit, the emissions during that time shall be considered uncontrolled until the flow rate is once again above the required limit. The period of time for which the flow rate is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.450.10	The Permittee shall record the daily average pressure drop at least once each operating day using the continuous monitor data. If the recorded pressure drop is below the required limit, the emissions during that time shall be considered uncontrolled until the pressure drop is once again above the required limit. The period of time for which the pressure drop is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.450.11	Recordkeeping of Pressure Drop and Water Flow Rate: The Permittee shall maintain a continuous written record of the pressure drop and water flow rate readings. The permittee shall record the daily average pressure drop reading and water flow rate reading and whether or not the observed value was within the range specified in this permit. Recorded values outside any range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subps. 4-5]
5.450.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded flow rate is below the required rate; - the recorded pressure drop is outside the required operating range; or - the scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop and/or water flow rate to within the permitted range(s), and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the Operation and Maintenance (O & M) Plan for the scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for each scrubber. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.450.13	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the wet scrubber. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.450.14	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the wet scrubber not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.450.15	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop and water flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation. [Minn. R. 7007.0800, subp. 4]
5.450.16	The Permittee shall calibrate or replace the pressure drop and flow rate monitors at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]

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5.450.17	The Permittee shall operate and maintain the scrubber in accordance with the O & M Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.450.18	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Pressure Drop Range Limit shall be reset as follows: - Using the CPMS, measure and record the pressure drop every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average pressure drop for each individual test run. - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is below the minimum value of the established range, the Pressure Drop Limit shall be reset as the lowest 1-hour average pressure drop corresponding to any of the three test runs. Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B), Minn. R. 7017.2025]
5.450.19	Protocol for Resetting the Water Flow Rate Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Water Flow Rate Limit is to be reset, the reset shall be based on the water flow rate values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Flow Rate Limit shall be reset as follows: - Using the CPMS, measure and record the scrubber water flow rate every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average scrubber water flow rate for each individual test run. - if the 3-hour average water flow rate recorded during the test is above the established limit, it shall not be reset and the established value remains the Flow Rate Limit; or - if the 3-hour average water flow rate recorded during the test is lower than the current limit, the Flow Rate Limit shall be reset as the lowest 1-hour average water flow rate corresponding to any of the three test runs. The new Flow Rate Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.450.20	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
5.450.21	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to

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	deviate from the Protocol for Re-setting the Pressure Drop Range Limit and Flow Rate Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
TREA 135	S3 Bentonite Storage Baghouse
5.451.1	The Permittee shall vent emissions from EQUI 88, EQUI 89, EQUI 165 and EQUI 278 to TREA 135 whenever EQUI 88, EQUI 89, EQUI 165 or EQUI 278 operates, and operate and maintain TREA 135 at all times that any emissions are vented to TREA 135. The Permittee shall document periods of non-operation of the control equipment TREA 135 whenever EQUI 88, EQUI 89, EQUI 165 or EQUI 278 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.451.2	If the Permittee replaces TREA 135, the replacement control must meet or exceed the control efficiency requirements of TREA 135 as well as comply with all other requirements of TREA 135. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.451.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.451.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.451.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.451.6	Pressure Drop ≥ 0.5 and ≤ 6.0 inches of water, unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new range shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The range is final upon issuance of a permit amendment incorporating the change. If the recorded pressure drop is outside the required range, the emissions during that time must be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range must be reported as a deviation. The Permittee must record the pressure drop at least once every 24 hours when in operation. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.451.7	Visible Emissions: The Permittee shall check the fabric filter stack STRU 139 for any visible emissions once each day of operation during daylight hours. If there are visible emissions, the emissions shall be considered uncontrolled until there are no longer visible emissions. The period of time for which there are visible emissions shall be reported as a deviation. During inclement weather, the Permittee shall read and record the pressure drop across the fabric filter, once each day of operation. [Minn. R. 7007.0800, subps. 4-5]
5.451.8	Recordkeeping of Visible Emissions and Pressure Drop. The Permittee shall record the time and date of each visible emission inspection and pressure drop reading, and whether or not any visible emissions were observed, and whether or not the observed pressure drop was within the range specified in this permit. [Minn. R. 7007.0800, subps. 4-5]
5.451.9	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the

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	following occur: - visible emissions are observed; - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop to within the permitted range, eliminate visible emissions, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.451.10	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.451.11	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.451.12	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.451.13	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.451.14	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
TREA 136	Line 6 Bentonite Day Bin Baghouse
5.452.1	The Permittee shall vent emissions from EQUI 90, EQUI 91, EQUI 92, EQUI 166, and EQUI 167 to TREA 136 whenever EQUI 90, EQUI 91, EQUI 92, EQUI 166, or EQUI 167 operates, and operate and maintain TREA 136 at all times that any emissions are vented to TREA 136. The Permittee shall document periods of non-operation of the control equipment TREA 136 whenever EQUI 90, EQUI 91, EQUI 92, EQUI 166, or EQUI 167 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.452.2	If the Permittee replaces TREA 136, the replacement control must meet or exceed the control efficiency requirements of TREA 136 as well as comply with all other requirements of TREA 136. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.452.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R.

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	7007.0800, subp. 2(A) & (B)]
5.452.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron $\geq$ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.452.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron $\geq$ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.452.6	Pressure Drop $\geq$ 0.5 and $\leq$ 8.0 inches of water, unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new range shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The range is final upon issuance of a permit amendment incorporating the change. If the recorded pressure drop is outside the required range, the emissions during that time must be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range must be reported as a deviation. The Permittee must record the pressure drop at least once every 24 hours when in operation. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.452.7	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.452.8	Pressure Drop: Recordkeeping. The Permittee shall record the time and date of each pressure drop reading and whether or not the recorded pressure drop was within the range specified in this permit. [Minn. R. 7007.0800, subps. 4-5]
5.452.9	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.452.10	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.452.11	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.452.12	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.452.13	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be

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	separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
TREA 137	Line 6 Bentonite Blending Baghouse
5.453.1	The Permittee shall vent emissions from EQUI 93, EQUI 94, EQUI 95, EQUI 168, and EQUI 269 to TREA 137 whenever EQUI 93, EQUI 94, EQUI 95, EQUI 168, or EQUI 269 operates, and operate and maintain TREA 137 at all times that any emissions are vented to TREA 137. The Permittee shall document periods of non-operation of the control equipment TREA 137 whenever EQUI 93, EQUI 94, EQUI 95, EQUI 168, or EQUI 269 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.453.2	If the Permittee replaces TREA 137, the replacement control must meet or exceed the control efficiency requirements of TREA 137 as well as comply with all other requirements of TREA 137. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.453.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.453.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.453.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.453.6	Pressure Drop ≥ 0.5 and ≤ 8.0 inches of water, unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new range shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The range is final upon issuance of a permit amendment incorporating the change. If the recorded pressure drop is outside the required range, the emissions during that time must be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range must be reported as a deviation. The Permittee must record the pressure drop at least once every 24 hours when in operation. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.453.7	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.453.8	Pressure Drop: Recordkeeping. The Permittee shall record the time and date of each pressure drop reading and whether or not the recorded pressure drop was within the range specified in this permit.

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	[Minn. R. 7007.0800, subps. 4-5]
5.453.9	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.453.10	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.453.11	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.453.12	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.453.13	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
TREA 138	Line 6 Grate Feed Scrubber
5.454.1	The Permittee shall vent emissions from EQUI 96 to TREA 138 whenever EQUI 96 operates, and operate and maintain TREA 138 at all times that any emissions are vented to TREA 138. The Permittee shall document periods of non-operation of the control equipment TREA 138 whenever EQUI 96 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.454.2	If the Permittee replaces TREA 138, the replacement control must meet or exceed the control efficiency requirements of TREA 138 as well as comply with all other requirements of TREA 138. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.454.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 95.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.454.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 94.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.454.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 90.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.454.6	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows:

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	40 CFR 63.9590(c); 40 CFR 63.9590(b)(1); 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (3); 40 CFR 63.9610(a); 40 CFR 63.9622(f); 40 CFR 63.9631(b); 40 CFR 63.9632(b)-(e); 40 CFR 63.9633; 40 CFR 63.9634(a), (e), & (j); 40 CFR 63.9636(a)(1) & (3); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.454.7	Pressure Drop $\geq$ 3.0 inches of water daily average (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.454.8	Water flow rate $\geq$ 33 gallons per minute daily average (Flow Rate Limit), unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3, and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.454.9	The Permittee shall calculate and record the daily average water flow rate at least once each operating day using the continuous monitor data. If the recorded flow rate is below the required limit, the emissions during that time shall be considered uncontrolled until the flow rate is once again above the required limit. The period of time for which the flow rate is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.454.10	The Permittee shall record the daily average pressure drop at least once each operating day using the continuous monitor data. If the recorded pressure drop is below the required limit, the emissions during that time shall be considered uncontrolled until the pressure drop is once again above the required limit. The period of time for which the pressure drop is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.454.11	Recordkeeping of Pressure Drop and Water Flow Rate: The Permittee shall maintain a continuous written record of the pressure drop and water flow rate readings. The permittee shall record the daily average pressure drop reading and water flow rate reading and whether or not the observed value was within the range specified in this permit. Recorded values outside any range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subps. 4-5]

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5.454.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded flow rate is below the required rate; - the recorded pressure drop is outside the required operating range; or - the scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop and/or water flow rate to within the permitted range(s), and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the Operation and Maintenance (O & M) Plan for the scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for each scrubber. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.454.13	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the wet scrubber. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.454.14	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the wet scrubber not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.454.15	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop and water flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation. [Minn. R. 7007.0800, subp. 4]
5.454.16	The Permittee shall calibrate or replace the pressure drop and flow rate monitors at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.454.17	The Permittee shall operate and maintain the scrubber in accordance with the O & M Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.454.18	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Pressure Drop Range Limit shall be reset as follows: - Using the CPMS, measure and record the pressure drop every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average pressure drop for each individual test run. - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is below the minimum value of the established range, the Pressure Drop Limit shall be reset as the lowest 1-hour average pressure drop corresponding to any of the three test runs. Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data

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	acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B), Minn. R. 7017.2025]
5.454.19	Protocol for Resetting the Water Flow Rate Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Water Flow Rate Limit is to be reset, the reset shall be based on the water flow rate values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Flow Rate Limit shall be reset as follows: - Using the CPMS, measure and record the scrubber water flow rate every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average scrubber water flow rate for each individual test run. - if the 3-hour average water flow rate recorded during the test is above the established limit, it shall not be reset and the established value remains the Flow Rate Limit; or - if the 3-hour average water flow rate recorded during the test is lower than the current limit, the Flow Rate Limit shall be reset as the lowest 1-hour average water flow rate corresponding to any of the three test runs. The new Flow Rate Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.454.20	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
5.454.21	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit and Flow Rate Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
TREA 139	Line 6 Grate Discharge Scrubber
5.455.1	The Permittee shall vent emissions from EQUI 97 to TREA 139 whenever EQUI 97 operates, and operate and maintain TREA 139 at all times that any emissions are vented to TREA 139. The Permittee shall document periods of non-operation of the control equipment TREA 139 whenever EQUI 97 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.455.2	If the Permittee replaces TREA 139, the replacement control must meet or exceed the control efficiency requirements of TREA 139 as well as comply with all other requirements of TREA 139. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.455.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 95.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.455.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency

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	for PM < 10 micron $\geq$ 94.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.455.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron $\geq$ 90.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.455.6	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9590(c); 40 CFR 63.9590(b)(1); 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (3); 40 CFR 63.9610(a); 40 CFR 63.9622(f); 40 CFR 63.9631(b); 40 CFR 63.9632(b)-(e); 40 CFR 63.9633; 40 CFR 63.9634(a), (e), & (j); 40 CFR 63.9636(a)(1) & (3); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.455.7	Pressure Drop $\geq$ 3.0 inches of water daily average (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.455.8	Water flow rate $\geq$ 33 gallons per minute daily average (Flow Rate Limit), unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.455.9	The Permittee shall calculate and record the daily average water flow rate at least once each operating day using the continuous monitor data. If the recorded flow rate is below the required limit, the emissions during that time shall be considered uncontrolled until the flow rate is once again above the required limit. The period of time for which the flow rate is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.455.10	The Permittee shall record the daily average pressure drop at least once each operating day using the continuous monitor data. If the recorded pressure drop is below the required limit, the emissions during that time shall be considered uncontrolled until the pressure drop is once again above the required limit. The period of time for which the pressure drop is considered below the limit shall be

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	reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.455.11	Recordkeeping of Pressure Drop and Water Flow Rate: The Permittee shall maintain a continuous written record of the pressure drop and water flow rate readings. The permittee shall record the daily average pressure drop reading and water flow rate reading and whether or not the observed value was within the range specified in this permit. Recorded values outside any range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subps. 4-5]
5.455.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded flow rate is below the required rate; - the recorded pressure drop is outside the required operating range; or - the scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop and/or water flow rate to within the permitted range(s), and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the Operation and Maintenance (O & M) Plan for the scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for each scrubber. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.455.13	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the wet scrubber. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.455.14	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the wet scrubber not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.455.15	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop and water flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation. [Minn. R. 7007.0800, subp. 4]
5.455.16	The Permittee shall calibrate or replace the pressure drop and flow rate monitors at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.455.17	The Permittee shall operate and maintain the scrubber in accordance with the O & M Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.455.18	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Pressure Drop Range Limit shall be reset as follows: - Using the CPMS, measure and record the pressure drop every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as

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	operating time. - Calculate and record the average pressure drop for each individual test run. - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is below the minimum value of the established range, the Pressure Drop Limit shall be reset as the lowest 1-hour average pressure drop corresponding to any of the three test runs. Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B), Minn. R. 7017.2025]
5.455.19	Protocol for Resetting the Water Flow Rate Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Water Flow Rate Limit is to be reset, the reset shall be based on the water flow rate values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Flow Rate Limit shall be reset as follows: - Using the CPMS, measure and record the scrubber water flow rate every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average scrubber water flow rate for each individual test run. - if the 3-hour average water flow rate recorded during the test is above the established limit, it shall not be reset and the established value remains the Flow Rate Limit; or - if the 3-hour average water flow rate recorded during the test is lower than the current limit, the Flow Rate Limit shall be reset as the lowest 1-hour average water flow rate corresponding to any of the three test runs. The new Flow Rate Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.455.20	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
5.455.21	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit and Flow Rate Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
TREA 143	Line 6 Waste Gas Stack Scrubber
5.456.1	The Permittee shall vent emissions from EQUI 3 to TREA 143 whenever EQUI 3 operates, and operate and maintain TREA 143 at all times that any emissions are vented to TREA 143. The Permittee shall document periods of non-operation of the control equipment TREA 143 whenever EQUI 3 is operating. [Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
5.456.2	If the Permittee replaces TREA 143, the replacement control must meet or exceed the control efficiency requirements of TREA 143 as well as comply with all other requirements of TREA 143. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable.

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	If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
5.456.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 97.1 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.456.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 90.1 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.456.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 83.5 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.456.6	Pressure Drop ≥ 7.2 and ≤ 12 inches of water daily average (Pressure Drop Range Limit) unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. [40 CFR 63.9590(b)(1), 40 CFR 64.3, Minn. R. 7011.8030, Minn. R. 7017.2025, Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
5.456.7	Water flow rate ≥ 2899 gallons per minute daily average (Flow Rate Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. [40 CFR 63.9590(b)(1), 40 CFR 64.3, Minn. R. 7011.8030, Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
5.456.8	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9590(c); 40 CFR 63.9590(b)(1); 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (3); 40 CFR 63.9610(a); 40 CFR 63.9622(f); 40 CFR 63.9631(b); 40 CFR 63.9632(b)-(e); 40 CFR 63.9633; 40 CFR 63.9634(a), (e), & (j); 40 CFR 63.9636(a)(1) & (3); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]

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5.456.9	The Permittee shall operate and maintain the scrubber in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.456.10	The Permittee shall maintain and operate a pressure drop monitoring device that continuously indicates and records the pressure drop across the scrubber every 15 minutes. The permittee shall maintain and operate a water flow monitoring device that indicates and records the water flow rate of the scrubber every 15 minutes. The recording device shall also calculate the three-hour rolling average pressure drop and water flow rate. [40 CFR 64.3(b)(ii), Minn. R. 7017.0200]
5.456.11	The Permittee shall maintain a continuous hard copy readout or computer disk file of the pressure drop readings and water flow rate readings. Readings outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [40 CFR 64.9(b), Minn. R. 7007.0800, subps. 4-5, Minn. R. 7017.0200]
5.456.12	If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. [40 CFR 64.3, Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.0200, Minn. R. 7017.2025]
5.456.13	If the recorded water flow rate is below the Water Flow Rate Limit, the emissions during that time shall be considered uncontrolled until the water flow rate is above the Water Flow Rate Limit. The period of time for which emissions are considered uncontrolled shall be reported as a deviation. [40 CFR 64.3, Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.0200, Minn. R. 7017.2025]
5.456.14	Pressure Drop: Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop and water flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation. [40 CFR 64.7(b), Minn. R. 7017.0200]
5.456.15	Annual Calibration: The Permittee shall calibrate the pressure drop monitor at least once every 12 months and shall maintain a written record of the calibration and any action resulting from the calibration. [40 CFR 64.3, Minn. R. 7017.0200]
5.456.16	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the wet scrubber. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [40 CFR 64.3, Minn. R. 7017.0200]
5.456.17	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the wet scrubber not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [40 CFR 64.3, Minn. R. 7017.0200]
5.456.18	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded pressure drop is outside the required operating range; or - the recorded water flow rate is below the required operating range; or - the scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop to within the permitted range and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for each control device. [40 CFR 64.7(d), Minn. R. 7017.0200]

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5.456.19	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee shall calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time. The established Pressure Drop Range Limit shall be reset as follows: - Using the CPMS, measure and record the pressure drop every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average pressure drop for each individual test run. - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is below the minimum value of the established range, the Pressure Drop Limit shall be reset as the lowest 1-hour average pressure drop corresponding to any of the three test runs. Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [40 CFR 63.9622(f), Minn. R. 7017.2025, Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
5.456.20	Protocol for Resetting the Water Flow Rate Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Water Flow Rate Limit is to be reset, the reset shall be based on the water flow rate values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Flow Rate Limit shall be reset as follows: - Using the CPMS, measure and record the scrubber water flow rate every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average scrubber water flow rate for each individual test run. - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is below the minimum value of the established range, the Pressure Drop Limit shall be reset as the lowest 1-hour average pressure drop corresponding to any of the three test runs. Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Water Flow Rate Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [40 CFR 63.9622(f), Minn. R. 7017.2025, Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
5.456.21	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]

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5.456.22	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
5.456.23	Documentation of Need for Improved Monitoring: If the Permittee fails to achieve compliance with an emission limitation or standard for which the monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing pressure drop range or minimum water flow rate, the Permittee shall promptly notify the MPCA and, if necessary, submit a permit amendment application to address the necessary monitoring change. [40 CFR 64.7(e), Minn. R. 7017.0200]
5.456.24	As required by 40 CFR 64.9(a)(2), for the Semi-Annual Deviations Report required by this permit and/or the Notification of Deviations Endangering Human Health and the Environment required by this permit, as applicable, the Permittee shall include the following related to the monitoring identified as required by 40 CFR pt. 64: 1) Summary information on the number, duration, and cause of excursions or exceedances, as applicable, and the corrective action taken; and 2) Summary information on the number, duration, and cause for monitor downtime incidents. [40 CFR 64.9(a)(2), Minn. R. 7017.0200]
5.456.25	The Permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, and other supporting information required to be maintained. The Permittee may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements. [40 CFR 64.9(b), Minn. R. 7017.0200]
TREA 145	Line 7 Bentonite Blending Baghouse
5.457.1	The Permittee shall vent emissions from EQUI 101, EQUI 102, EQUI 103, EQUI 176, and EQUI 177 to TREA 145 whenever from EQUI 101, EQUI 102, EQUI 103, EQUI 176, or EQUI 177 operates, and operate and maintain TREA 145 at all times that any emissions are vented to TREA 145. The Permittee shall document periods of non-operation of the control equipment TREA 145 whenever from EQUI 101, EQUI 102, EQUI 103, EQUI 176, or EQUI 177 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.457.2	If the Permittee replaces TREA 145, the replacement control must meet or exceed the control efficiency requirements of TREA 145 as well as comply with all other requirements of TREA 145. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.457.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 99 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.457.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 93 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.457.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 93 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]

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5.457.6	Pressure Drop ≥ 0.5 and ≤ 8.0 inches of water, unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new range shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The range is final upon issuance of a permit amendment incorporating the change. If the recorded pressure drop is outside the required range, the emissions during that time must be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range must be reported as a deviation. The Permittee must record the pressure drop at least once every 24 hours when in operation. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.457.7	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - visible emissions are observed; - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop to within the permitted range, eliminate visible emissions, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.457.8	Pressure Drop: Recordkeeping. The Permittee shall record the time and date of each pressure drop reading and whether or not the recorded pressure drop was within the range specified in this permit. [Minn. R. 7007.0800, subps. 4-5]
5.457.9	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.457.10	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.457.11	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.457.12	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.457.13	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
TREA 146	Line 7 Grate Feed Scrubber
5.458.1	The Permittee shall vent emissions from EQUI 104 to TREA 146 whenever EQUI 104 operates, and operate and maintain TREA 146 at all times that any emissions are vented to TREA 146. The Permittee

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	shall document periods of non-operation of the control equipment TREA 146 whenever EQUI 104 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.458.2	If the Permittee replaces TREA 146, the replacement control must meet or exceed the control efficiency requirements of TREA 146 as well as comply with all other requirements of TREA 146. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.458.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 95.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.458.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 94.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.458.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 90.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.458.6	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9590(c); 40 CFR 63.9590(b)(1); 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (3); 40 CFR 63.9610(a); 40 CFR 63.9622(f); 40 CFR 63.9631(b); 40 CFR 63.9632(b)-(e); 40 CFR 63.9633; 40 CFR 63.9634(a), (e), & (j); 40 CFR 63.9636(a)(1) & (3); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.458.7	Pressure Drop ≥ 3.0 inches of water daily average (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R.

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	7011.8030, Minn. R. 7017.2025]
5.458.8	Water flow rate $\geq$ 33 gallons per minute daily average (Flow Rate Limit), unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.458.9	The Permittee shall calculate and record the daily average water flow rate at least once each operating day using the continuous monitor data. If the recorded flow rate is below the required limit, the emissions during that time shall be considered uncontrolled until the flow rate is once again above the required limit. The period of time for which the flow rate is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.458.10	The Permittee shall record the daily average pressure drop at least once each operating day using the continuous monitor data. If the recorded pressure drop is below the required limit, the emissions during that time shall be considered uncontrolled until the pressure drop is once again above the required limit. The period of time for which the pressure drop is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.458.11	Recordkeeping of Pressure Drop and Water Flow Rate: The Permittee shall maintain a continuous written record of the pressure drop and water flow rate readings. The permittee shall record the daily average pressure drop reading and water flow rate reading and whether or not the observed value was within the range specified in this permit. Recorded values outside any range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subps. 4-5]
5.458.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded flow rate is below the required rate; - the recorded pressure drop is outside the required operating range; or - the scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop and/or water flow rate to within the permitted range(s), and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the Operation and Maintenance (O & M) Plan for the scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for each scrubber. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.458.13	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the wet scrubber. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.458.14	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the wet scrubber not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.458.15	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop and water flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation. [Minn. R. 7007.0800, subp. 4]

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5.458.16	The Permittee shall calibrate or replace the pressure drop and flow rate monitors at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.458.17	The Permittee shall operate and maintain the scrubber in accordance with the O & M Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.458.18	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Pressure Drop Range Limit shall be reset as follows: - Using the CPMS, measure and record the pressure drop every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average pressure drop for each individual test run. - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is below the minimum value of the established range, the Pressure Drop Limit shall be reset as the lowest 1-hour average pressure drop corresponding to any of the three test runs. Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B), Minn. R. 7017.2025]
5.458.19	Protocol for Resetting the Water Flow Rate Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Water Flow Rate Limit is to be reset, the reset shall be based on the water flow rate values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Flow Rate Limit shall be reset as follows: - Using the CPMS, measure and record the scrubber water flow rate every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average scrubber water flow rate for each individual test run. - if the 3-hour average water flow rate recorded during the test is above the established limit, it shall not be reset and the established value remains the Flow Rate Limit; or - if the 3-hour average water flow rate recorded during the test is lower than the current limit, the Flow Rate Limit shall be reset as the lowest 1-hour average water flow rate corresponding to any of the three test runs. The new Flow Rate Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.458.20	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of

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	preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
5.458.21	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit and Flow Rate Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
TREA 147	Line 7 Grate Discharge Scrubber
5.459.1	The Permittee shall vent emissions from EQUI 178 to TREA 147 whenever EQUI 178 operates, and operate and maintain TREA 147 at all times that any emissions are vented to TREA 147. The Permittee shall document periods of non-operation of the control equipment TREA 147 whenever EQUI 178 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.459.2	If the Permittee replaces TREA 147, the replacement control must meet or exceed the control efficiency requirements of TREA 147 as well as comply with all other requirements of TREA 147. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.459.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter $\geq$ 96.6 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.459.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron $\geq$ 94.5 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.459.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron $\geq$ 90.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.459.6	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9590(c); 40 CFR 63.9590(b)(1); 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (3); 40 CFR 63.9610(a); 40 CFR 63.9622(f); 40 CFR 63.9631(b); 40 CFR 63.9632(b)-(e); 40 CFR 63.9633; 40 CFR 63.9634(a), (e), & (j); 40 CFR 63.9636(a)(1) & (3); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J.

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	If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.459.7	Pressure Drop $\geq$ 3.0 inches of water daily average (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.459.8	Water flow rate $\geq$ 33 gallons per minute daily average (Flow Rate Limit), unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.459.9	The Permittee shall record the water flow rate at least once each operating day. If the recorded flow rate is below the required limit, the emissions during that time shall be considered uncontrolled until the flow rate is once again above the required limit. The period of time for which the flow rate is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.459.10	The Permittee shall record the pressure drop at least once each operating day. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.459.11	Recordkeeping of Pressure Drop and Water Flow Rate: The Permittee shall record the time and date of each pressure drop reading and water flow rate reading, and whether or not the recorded values were within the ranges specified in this permit. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5]
5.459.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded flow rate is below the required rate; - the recorded pressure drop is outside the required operating range; or - the scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop and/or water flow rate to within the permitted range(s), and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the Operation and Maintenance (O & M) Plan for the scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for each scrubber. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.459.13	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the wet scrubber. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.459.14	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the wet scrubber not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn.

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	R. 7007.0800, subps. 4-5]
5.459.15	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop and water flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation. [Minn. R. 7007.0800, subp. 4]
5.459.16	The Permittee shall calibrate or replace the pressure drop and flow rate monitors at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.459.17	The Permittee shall operate and maintain the scrubber in accordance with the O & M Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.459.18	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Pressure Drop Range Limit shall be reset as follows: - Using the CPMS, measure and record the pressure drop every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average pressure drop for each individual test run. - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is below the minimum value of the established range, the Pressure Drop Limit shall be reset as the lowest 1-hour average pressure drop corresponding to any of the three test runs. Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B), Minn. R. 7017.2025]
5.459.19	Protocol for Resetting the Water Flow Rate Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Water Flow Rate Limit is to be reset, the reset shall be based on the water flow rate values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Flow Rate Limit shall be reset as follows: - Using the CPMS, measure and record the scrubber water flow rate every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average scrubber water flow rate for each individual test run. - if the 3-hour average water flow rate recorded during the test is above the established limit, it shall not be reset and the established value remains the Flow Rate Limit; or - if the 3-hour average water flow rate recorded during the test is lower than the current limit, the Flow Rate Limit shall be reset as the lowest 1-hour average water flow rate corresponding to any of the three test runs. The new Flow Rate Limit shall be effective upon receipt of the Notice of Compliance letter that

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	approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.459.20	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
5.459.21	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit and Flow Rate Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
TREA 151	Line 7 Waste Gas Stack Scrubber
5.460.1	The Permittee shall vent emissions from EQUI 179 to TREA 151 whenever EQUI 179 operates, and operate and maintain TREA 151 at all times that any emissions are vented to TREA 151. The Permittee shall document periods of non-operation of the control equipment TREA 151 whenever EQUI 179 is operating. [Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
5.460.2	If the Permittee replaces TREA 151, the replacement control must meet or exceed the control efficiency requirements of TREA 151 as well as comply with all other requirements of TREA 151. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
5.460.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 97.1 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.460.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 90.1 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.460.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 83.5 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.460.6	Pressure Drop ≥ 5.7 and ≤ 12 inches of water daily average (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. [40 CFR 63.9590(b)(1), 40 CFR 64.3, Minn. R. 7011.8030, Minn. R. 7017.2025, Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
5.460.7	Water flow rate ≥ 2897 gallons per minute daily average (Flow Rate Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. [40 CFR 63.9590(b)(1), 40 CFR 64.3, Minn. R. 7011.8030, Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
5.460.8	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9590(c); 40 CFR 63.9590(b)(1);

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	40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (3); 40 CFR 63.9610(a); 40 CFR 63.9622(f); 40 CFR 63.9631(b); 40 CFR 63.9632(b)-(e); 40 CFR 63.9633; 40 CFR 63.9634(a), (e), & (j); 40 CFR 63.9636(a)(1) & (3); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.460.9	The Permittee shall operate and maintain the scrubber in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.460.10	The Permittee shall maintain and operate a pressure drop monitoring device that continuously indicates and records the pressure drop across the scrubber every 15 minutes. The permittee shall maintain and operate a water flow monitoring device that indicates and records the water flow rate of the scrubber every 15 minutes. The recording device shall also calculate the three-hour rolling average pressure drop and water flow rate. [40 CFR 64.3(b)(ii), Minn. R. 7017.0200]
5.460.11	The Permittee shall maintain a continuous hard copy readout or computer disk file of the pressure drop readings and water flow rate readings. Readings outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [40 CFR 64.9(b), Minn. R. 7007.0800, subps. 4-5, Minn. R. 7017.0200]
5.460.12	If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. [40 CFR 64.3, Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.0200, Minn. R. 7017.2025]
5.460.13	If the recorded water flow rate is below the Water Flow Rate Limit, the emissions during that time shall be considered uncontrolled until the water flow rate is above the Water Flow Rate Limit. The period of time for which emissions are considered uncontrolled shall be reported as a deviation. [40 CFR 64.3, Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.0200, Minn. R. 7017.2025]
5.460.14	Pressure Drop: Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop and water flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation. [40 CFR 64.7(b), Minn. R. 7017.0200]
5.460.15	Annual Calibration: The Permittee shall calibrate the pressure drop monitor at least once every 12 months and shall maintain a written record of the calibration and any action resulting from the

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	calibration. [40 CFR 64.3, Minn. R. 7017.0200]
5.460.16	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the wet scrubber. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [40 CFR 64.3, Minn. R. 7017.0200]
5.460.17	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the wet scrubber not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [40 CFR 64.3, Minn. R. 7017.0200]
5.460.18	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded pressure drop is outside the required operating range; or - the recorded water flow rate is below the required operating range; or - the scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop to within the permitted range and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for each control device. [40 CFR 64.7(d), Minn. R. 7017.0200]
5.460.19	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee shall calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time. The established Pressure Drop Range Limit shall be reset as follows: - Using the CPMS, measure and record the pressure drop every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average pressure drop for each individual test run. - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is below the minimum value of the established range, the Pressure Drop Limit shall be reset as the lowest 1-hour average pressure drop corresponding to any of the three test runs. Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [40 CFR 63.9622(f), Minn. R. 7017.2025, Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
5.460.20	Protocol for Resetting the Water Flow Rate Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Water Flow Rate Limit is to be reset, the reset shall be based on the water flow rate values recorded during the most recent MPCA-approved performance test where compliance was demonstrated.

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	The established Flow Rate Limit shall be reset as follows: - Using the CPMS, measure and record the scrubber water flow rate every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average scrubber water flow rate for each individual test run. - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is below the minimum value of the established range, the Pressure Drop Limit shall be reset as the lowest 1-hour average pressure drop corresponding to any of the three test runs. Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Water Flow Rate Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [40 CFR 63.9622(f), Minn. R. 7017.2025, Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
5.460.21	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.460.22	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
5.460.23	Documentation of Need for Improved Monitoring: If the Permittee fails to achieve compliance with an emission limitation or standard for which the monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing pressure drop range or minimum water flow rate, the Permittee shall promptly notify the MPCA and, if necessary, submit a permit amendment application to address the necessary monitoring change. [40 CFR 64.7(e), Minn. R. 7017.0200]
5.460.24	As required by 40 CFR 64.9(a)(2), for the Semi-Annual Deviations Report required by this permit and/or the Notification of Deviations Endangering Human Health and the Environment required by this permit, as applicable, the Permittee shall include the following related to the monitoring identified as required by 40 CFR pt. 64: 1) Summary information on the number, duration, and cause of excursions or exceedances, as applicable, and the corrective action taken; and 2) Summary information on the number, duration, and cause for monitor downtime incidents. [40 CFR 64.9(a)(2), Minn. R. 7017.0200]
5.460.25	The Permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, and other supporting information required to be maintained. The Permittee may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements. [40 CFR 64.9(b), Minn. R. 7017.0200]
TREA 171	Hill Wood Products Baghouse
5.461.1	The Permittee shall vent emissions from EQUI 266 to TREA 171 whenever EQUI 266 operates, and operate and maintain TREA 171 at all times that any emissions are vented to TREA 171. The Permittee shall document periods of non-operation of the control equipment TREA 171 whenever EQUI 266 is operating. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) & Minn. R. 7007.3000]

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5.461.2	If the Permittee replaces TREA 171, the replacement control must meet or exceed the control efficiency requirements of TREA 171 as well as comply with all other requirements of TREA 171. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) & Minn. R. 7007.3000]
5.461.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 90 percent control efficiency. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) & Minn. R. 7007.3000]
5.461.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 90 percent control efficiency. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) & Minn. R. 7007.3000]
5.461.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 93 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.461.6	Pressure Drop ≥ 0.5 and ≤ 6.0 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. During inclement weather, the Permittee shall record the pressure drop at least once every 24 hours when in operation. [Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) & Minn. R. 7007.3000]
5.461.7	Visible Emissions: The Permittee shall check the fabric filter stack STRU 259 for any visible emissions once each day of operation during daylight hours. If there are visible emissions, the emissions shall be considered uncontrolled until there are no longer visible emissions. The period of time for which there are visible emissions shall be reported as a deviation. During inclement weather, the Permittee shall read and record the pressure drop across the fabric filter, once each day of operation. [Minn. R. 7007.0800, subps. 4-5]
5.461.8	Recordkeeping of Visible Emissions and Pressure Drop. The Permittee shall record the time and date of each visible emission inspection and pressure drop reading, and whether or not any visible emissions were observed, and whether or not the observed pressure drop was within the range specified in this permit. [Minn. R. 7007.0800, subps. 4-5]
5.461.9	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - visible emissions are observed; - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop to within the permitted range, eliminate visible emissions, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]

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5.461.10	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.461.11	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.461.12	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.461.13	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturing specifications, the Permittee shall inspect the control equipment components. The Permittee shall maintain a written record of these inspections. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.461.14	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.461.15	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
TREA 172	Line 3 Grate Feed Dynamic Wet Scrubber
5.462.1	The Permittee shall vent emissions from EQUI 347 to TREA 172 whenever EQUI 347 operates, and operate and maintain TREA 172 at all times that any emissions are vented to EQUI 347. The Permittee shall document periods of non-operation of the control equipment TREA 172 whenever EQUI 347 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.462.2	If the Permittee replaces TREA 172, the replacement control must meet or exceed the control efficiency requirements of TREA 172 as well as comply with all other requirements of TREA 172. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.462.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 95.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.462.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 94.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.462.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 90.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]

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5.462.6	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9590(c); 40 CFR 63.9590(b)(2); 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (3); 40 CFR 63.9610(a); 40 CFR 63.9622(f); 40 CFR 63.9631(c); 40 CFR 63.9632(b)-(e); 40 CFR 63.9633; 40 CFR 63.9634(a), (f), & (l); 40 CFR 63.9636(a)(1) & (3); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.462.7	Fan amperage $\geq$ 25.2 amperes daily average (Fan Amperage Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(2), Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subp.14, Minn. R. 7011.8030, Minn. R. 7017.2025]
5.462.8	Water flow rate $\geq$ 7.0 gallons per minute daily average (Flow Rate Limit), unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(2), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B), Minn. R. 7011.8030]
5.462.9	The Permittee shall calculate and record the daily average water flow rate at least once each operating day using the continuous monitor data. If the recorded flow rate is below the required limit, the emissions during that time shall be considered uncontrolled until the daily average flow rate is once again above the required limit. The period of time for which the flow rate is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.462.10	The Permittee shall record the daily average fan amperage at least once each operating day using the continuous monitor data. If the recorded fan amperage is below the required limit, the emissions during that time shall be considered uncontrolled until the daily average fan amperage is once again above the required limit. The period of time for which the fan amperage is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.462.11	Recordkeeping of Fan Amperage and Water Flow Rate: The Permittee shall maintain a continuous written record of the fan amperage and water flow rate readings. The permittee shall record the daily average fan amperage reading and water flow rate reading and whether or not the observed value

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	was within the range specified in this permit. Recorded values outside any range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subps. 4-5]
5.462.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded flow rate is below the required rate; - the recorded pressure drop is outside the required operating range; or - the scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop and/or water flow rate to within the permitted range(s), and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the Operation and Maintenance (O & M) Plan for the scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for each scrubber. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.462.13	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the wet scrubber. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.462.14	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the wet scrubber not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.462.15	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording fan amperage and water flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation. [Minn. R. 7007.0800, subp. 4]
5.462.16	The Permittee shall calibrate or replace the fan amperage and flow rate monitors at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.462.17	The Permittee shall operate and maintain the scrubber in accordance with the O & M Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.462.18	Protocol for Resetting the Water Flow Rate Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Water Flow Rate Limit is to be reset, the reset shall be based on the water flow rate values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Flow Rate Limit shall be reset as follows: - Using the CPMS, measure and record the scrubber water flow rate every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average scrubber water flow rate for each individual test run. - if the 3-hour average water flow rate recorded during the test is above the established limit, it shall not be reset and the established value remains the Flow Rate Limit; or - if the 3-hour average water flow rate recorded during the test is lower than the current limit, the Flow Rate Limit shall be reset as the lowest 1-hour average water flow rate corresponding to any of the three test runs.

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	The new Flow Rate Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.462.19	Protocol for Resetting the Fan Amperage Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Fan Amperage Limit is to be reset, the reset shall be based on the fan amperage values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Fan Amperage Limit shall be reset as follows: - Using the CPMS, measure and record the fan amperage every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average fan amperage for each individual test run. - The operating limit shall be reset as the lowest average fan amperage value corresponding to any of the three test runs. Ongoing compliance with Fan Amperage Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Fan Amperage Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B), Minn. R. 7017.2025]
5.462.20	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit and Flow Rate Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
TREA 173	Line 3 Grate Discharge Dynamic Wet Scrubber
5.463.1	The Permittee shall vent emissions from EQUI 348 to TREA 173 whenever EQUI 348 operates, and operate and maintain TREA 173 at all times that any emissions are vented to TREA 173. The Permittee shall document periods of non-operation of the control equipment TREA 173 whenever EQUI 348 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.463.2	If the Permittee replaces TREA 173, the replacement control must meet or exceed the control efficiency requirements of TREA 173 as well as comply with all other requirements of TREA 173. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.463.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 96.6 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.463.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 94.5 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.463.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 90.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.463.6	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as

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	follows: 40 CFR 63.9590(c); 40 CFR 63.9590(b)(2); 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (3); 40 CFR 63.9610(a); 40 CFR 63.9622(f); 40 CFR 63.9631(c); 40 CFR 63.9632(b)-(e); 40 CFR 63.9633; 40 CFR 63.9634(a), (f), & (l); 40 CFR 63.9636(a)(1) & (3); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.463.7	Fan amperage $\geq$ 25.2 amperes daily average (Fan Amperage Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(2), Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subp.14, Minn. R. 7011.8030, Minn. R. 7017.2025]
5.463.8	Water flow rate $\geq$ 7.0 gallons per minute daily average (Flow Rate Limit), unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(2), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B), Minn. R. 7011.8030]
5.463.9	The Permittee shall calculate and record the daily average water flow rate at least once each operating day using the continuous monitor data. If the recorded flow rate is below the required limit, the emissions during that time shall be considered uncontrolled until the daily average flow rate is once again above the required limit. The period of time for which the flow rate is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.463.10	The Permittee shall record the daily average fan amperage at least once each operating day using the continuous monitor data. If the recorded fan amperage is below the required limit, the emissions during that time shall be considered uncontrolled until the daily average fan amperage is once again above the required limit. The period of time for which the fan amperage is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.463.11	Recordkeeping of Fan Amperage and Water Flow Rate: The Permittee shall maintain a continuous written record of the fan amperage and water flow rate readings. The permittee shall record the daily average fan amperage reading and water flow rate reading and whether or not the observed value was within the range specified in this permit. Recorded values outside any range specified in this

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	permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subps. 4-5]
5.463.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded flow rate is below the required rate; - the recorded pressure drop is outside the required operating range; or - the scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop and/or water flow rate to within the permitted range(s), and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the Operation and Maintenance (O & M) Plan for the scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for each scrubber. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.463.13	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the wet scrubber. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.463.14	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the wet scrubber not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.463.15	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording fan amperage and water flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation. [Minn. R. 7007.0800, subp. 4]
5.463.16	The Permittee shall calibrate or replace the fan amperage and flow rate monitors at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.463.17	The Permittee shall operate and maintain the scrubber in accordance with the O & M Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.463.18	Protocol for Resetting the Water Flow Rate Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Water Flow Rate Limit is to be reset, the reset shall be based on the water flow rate values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Flow Rate Limit shall be reset as follows: - Using the CPMS, measure and record the scrubber water flow rate every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average scrubber water flow rate for each individual test run. - if the 3-hour average water flow rate recorded during the test is above the established limit, it shall not be reset and the established value remains the Flow Rate Limit; or - if the 3-hour average water flow rate recorded during the test is lower than the current limit, the Flow Rate Limit shall be reset as the lowest 1-hour average water flow rate corresponding to any of the three test runs.

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	The new Flow Rate Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.463.19	Protocol for Resetting the Fan Amperage Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Fan Amperage Limit is to be reset, the reset shall be based on the fan amperage values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Fan Amperage Limit shall be reset as follows: - Using the CPMS, measure and record the fan amperage every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average fan amperage for each individual test run. - The operating limit shall be reset as the lowest average fan amperage value corresponding to any of the three test runs. Ongoing compliance with Fan Amperage Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Fan Amperage Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B), Minn. R. 7017.2025]
5.463.20	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit and Flow Rate Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
TREA 174	Line 3 Cooler Discharge Dynamic Wet Scrubber
5.464.1	The Permittee shall vent emissions from EQUI 147 to TREA 174 whenever EQUI 147 operates, and operate and maintain TREA 174 at all times that any emissions are vented to TREA 174. The Permittee shall document periods of non-operation of the control equipment TREA 174 whenever EQUI 147 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.464.2	If the Permittee replaces TREA 174, the replacement control must meet or exceed the control efficiency requirements of TREA 174 as well as comply with all other requirements of TREA 174. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.464.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 95.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.464.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 94.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.464.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 90.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.464.6	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows:

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	40 CFR 63.9590(c); 40 CFR 63.9590(b)(2); 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (3); 40 CFR 63.9610(a); 40 CFR 63.9622(f); 40 CFR 63.9631(c); 40 CFR 63.9632(b)-(e); 40 CFR 63.9633; 40 CFR 63.9634(a), (f), & (I); 40 CFR 63.9636(a)(1) & (3); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.464.7	Fan amperage $\geq$ 86.8 amperes daily average (Fan Amperage Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(2), Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subp.14, Minn. R. 7011.8030, Minn. R. 7017.2025]
5.464.8	Water flow rate $\geq$ 28.0 gallons per minute daily average (Flow Rate Limit), unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(2), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B), Minn. R. 7011.8030]
5.464.9	The Permittee shall calculate and record the daily average water flow rate at least once each operating day using the continuous monitor data. If the recorded flow rate is below the required limit, the emissions during that time shall be considered uncontrolled until the daily average flow rate is once again above the required limit. The period of time for which the flow rate is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.464.10	The Permittee shall record the daily average fan amperage at least once each operating day using the continuous monitor data. If the recorded fan amperage is below the required limit, the emissions during that time shall be considered uncontrolled until the daily average fan amperage is once again above the required limit. The period of time for which the fan amperage is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.464.11	Recordkeeping of Fan Amperage and Water Flow Rate: The Permittee shall maintain a continuous written record of the fan amperage and water flow rate readings. The permittee shall record the daily average fan amperage reading and water flow rate reading and whether or not the observed value was within the range specified in this permit. Recorded values outside any range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800,

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	subps. 4-5]
5.464.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded flow rate is below the required rate; - the recorded pressure drop is outside the required operating range; or - the scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop and/or water flow rate to within the permitted range(s), and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the Operation and Maintenance (O & M) Plan for the scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for each scrubber. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.464.13	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the wet scrubber. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.464.14	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the wet scrubber not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.464.15	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording fan amperage and water flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation. [Minn. R. 7007.0800, subp. 4]
5.464.16	The Permittee shall calibrate or replace the fan amperage and flow rate monitors at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.464.17	The Permittee shall operate and maintain the scrubber in accordance with the O & M Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.464.18	Protocol for Resetting the Water Flow Rate Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Water Flow Rate Limit is to be reset, the reset shall be based on the water flow rate values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Flow Rate Limit shall be reset as follows: - Using the CPMS, measure and record the scrubber water flow rate every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average scrubber water flow rate for each individual test run. - if the 3-hour average water flow rate recorded during the test is above the established limit, it shall not be reset and the established value remains the Flow Rate Limit; or - if the 3-hour average water flow rate recorded during the test is lower than the current limit, the Flow Rate Limit shall be reset as the lowest 1-hour average water flow rate corresponding to any of the three test runs. The new Flow Rate Limit shall be effective upon receipt of the Notice of Compliance letter that

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	approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.464.19	Protocol for Resetting the Fan Amperage Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Fan Amperage Limit is to be reset, the reset shall be based on the fan amperage values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Fan Amperage Limit shall be reset as follows: - Using the CPMS, measure and record the fan amperage every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average fan amperage for each individual test run. - The operating limit shall be reset as the lowest average fan amperage value corresponding to any of the three test runs. Ongoing compliance with Fan Amperage Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Fan Amperage Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B), Minn. R. 7017.2025]
5.464.20	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit and Flow Rate Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
TREA 175	Line 3 Pellet Cooler Dynamic Wet Scrubber
5.465.1	The Permittee shall vent emissions from EQUI 351 to TREA 175 whenever EQUI 351 operates, and operate and maintain TREA 175 at all times that any emissions are vented to TREA 175. The Permittee shall document periods of non-operation of the control equipment TREA 175 whenever EQUI 351 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.465.2	If the Permittee replaces TREA 175, the replacement control must meet or exceed the control efficiency requirements of TREA 175 as well as comply with all other requirements of TREA 175. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.465.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 95.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.465.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 94.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.465.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 90.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.465.6	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows:

Requirement number	Requirement and citation
	40 CFR 63.9590(c); 40 CFR 63.9590(b)(2); 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (3); 40 CFR 63.9610(a); 40 CFR 63.9622(f); 40 CFR 63.9631(c); 40 CFR 63.9632(b)-(e); 40 CFR 63.9633; 40 CFR 63.9634(a), (f), & (l); 40 CFR 63.9636(a)(1) & (3); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.465.7	Fan amperage $\geq$ 25.2 amperes daily average (Fan Amperage Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(2), Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subp. 14, Minn. R. 7011.8030, Minn. R. 7017.2025]
5.465.8	Water flow rate $\geq$ 7.0 gallons per minute daily average (Flow Rate Limit), unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(2), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B), Minn. R. 7011.8030]
5.465.9	The Permittee shall calculate and record the daily average water flow rate at least once each operating day using the continuous monitor data. If the recorded flow rate is below the required limit, the emissions during that time shall be considered uncontrolled until the daily average flow rate is once again above the required limit. The period of time for which the flow rate is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.465.10	The Permittee shall record the daily average fan amperage at least once each operating day using the continuous monitor data. If the recorded fan amperage is below the required limit, the emissions during that time shall be considered uncontrolled until the daily average fan amperage is once again above the required limit. The period of time for which the fan amperage is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.465.11	Recordkeeping of Fan Amperage and Water Flow Rate: The Permittee shall maintain a continuous written record of the fan amperage and water flow rate readings. The permittee shall record the daily average fan amperage reading and water flow rate reading and whether or not the observed value was within the range specified in this permit. Recorded values outside any range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subps. 4-5]

Requirement number	Requirement and citation
5.465.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded flow rate is below the required rate; - the recorded pressure drop is outside the required operating range; or - the scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop and/or water flow rate to within the permitted range(s), and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the Operation and Maintenance (O & M) Plan for the scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for each scrubber. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.465.13	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the wet scrubber. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.465.14	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the wet scrubber not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.465.15	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording fan amperage and water flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation. [Minn. R. 7007.0800, subp. 4]
5.465.16	The Permittee shall calibrate or replace the fan amperage and flow rate monitors at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.465.17	The Permittee shall operate and maintain the scrubber in accordance with the O & M Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.465.18	Protocol for Resetting the Water Flow Rate Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Water Flow Rate Limit is to be reset, the reset shall be based on the water flow rate values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Flow Rate Limit shall be reset as follows: - Using the CPMS, measure and record the scrubber water flow rate every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average scrubber water flow rate for each individual test run. - if the 3-hour average water flow rate recorded during the test is above the established limit, it shall not be reset and the established value remains the Flow Rate Limit; or - if the 3-hour average water flow rate recorded during the test is lower than the current limit, the Flow Rate Limit shall be reset as the lowest 1-hour average water flow rate corresponding to any of the three test runs. The new Flow Rate Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended.

Requirement number	Requirement and citation
	[Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.465.19	Protocol for Resetting the Fan Amperage Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Fan Amperage Limit is to be reset, the reset shall be based on the fan amperage values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Fan Amperage Limit shall be reset as follows: - Using the CPMS, measure and record the fan amperage every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average fan amperage for each individual test run. - The operating limit shall be reset as the lowest average fan amperage value corresponding to any of the three test runs. Ongoing compliance with Fan Amperage Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Fan Amperage Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B), Minn. R. 7017.2025]
5.465.20	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit and Flow Rate Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
TREA 176	Step I Agglomerator 042 043 Conveyor Dynamic Wet Scrubber
5.466.1	The Permittee shall vent emissions from EQUI 149 and EQUI 353 to TREA 176 whenever EQUI 149 or EQUI 353 operates, and operate and maintain TREA 176 at all times that any emissions are vented to TREA 176. The Permittee shall document periods of non-operation of the control equipment TREA 176 whenever EQUI 149 or EQUI 353 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.466.2	If the Permittee replaces TREA 176, the replacement control must meet or exceed the control efficiency requirements of TREA 176 as well as comply with all other requirements of TREA 176. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.466.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 95.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.466.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 94.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.466.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 90.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.466.6	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows:

Requirement number	Requirement and citation
	40 CFR 63.9590(c); 40 CFR 63.9590(b)(2); 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (3); 40 CFR 63.9610(a); 40 CFR 63.9622(f); 40 CFR 63.9631(c); 40 CFR 63.9632(b)-(e); 40 CFR 63.9633; 40 CFR 63.9634(a), (f), & (l); 40 CFR 63.9636(a)(1) & (3); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.466.7	Fan amperage $\geq$ 25.2 amperes daily average (Fan Amperage Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(2), Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subp. 14, Minn. R. 7011.8030, Minn. R. 7017.2025]
5.466.8	Water flow rate $\geq$ 7.0 gallons per minute daily average (Flow Rate Limit), unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(2), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B), Minn. R. 7011.8030]
5.466.9	The Permittee shall calculate and record the daily average water flow rate at least once each operating day using the continuous monitor data. If the recorded flow rate is below the required limit, the emissions during that time shall be considered uncontrolled until the daily average flow rate is once again above the required limit. The period of time for which the flow rate is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.466.10	The Permittee shall record the daily average fan amperage at least once each operating day using the continuous monitor data. If the recorded fan amperage is below the required limit, the emissions during that time shall be considered uncontrolled until the daily average fan amperage is once again above the required limit. The period of time for which the fan amperage is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.466.11	Recordkeeping of Fan Amperage and Water Flow Rate: The Permittee shall maintain a continuous written record of the fan amperage and water flow rate readings. The permittee shall record the daily average fan amperage reading and water flow rate reading and whether or not the observed value was within the range specified in this permit. Recorded values outside any range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subps. 4-5]

Requirement number	Requirement and citation
5.466.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded flow rate is below the required rate; - the recorded pressure drop is outside the required operating range; or - the scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop and/or water flow rate to within the permitted range(s), and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the Operation and Maintenance (O & M) Plan for the scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for each scrubber. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.466.13	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the wet scrubber. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.466.14	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the wet scrubber not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.466.15	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording fan amperage and water flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation. [Minn. R. 7007.0800, subp. 4]
5.466.16	The Permittee shall calibrate or replace the fan amperage and flow rate monitors at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.466.17	The Permittee shall operate and maintain the scrubber in accordance with the O & M Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.466.18	Protocol for Resetting the Water Flow Rate Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Water Flow Rate Limit is to be reset, the reset shall be based on the water flow rate values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Flow Rate Limit shall be reset as follows: - Using the CPMS, measure and record the scrubber water flow rate every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average scrubber water flow rate for each individual test run. - if the 3-hour average water flow rate recorded during the test is above the established limit, it shall not be reset and the established value remains the Flow Rate Limit; or - if the 3-hour average water flow rate recorded during the test is lower than the current limit, the Flow Rate Limit shall be reset as the lowest 1-hour average water flow rate corresponding to any of the three test runs. The new Flow Rate Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended.

Requirement number	Requirement and citation
	[Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.466.19	Protocol for Resetting the Fan Amperage Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Fan Amperage Limit is to be reset, the reset shall be based on the fan amperage values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Fan Amperage Limit shall be reset as follows: - Using the CPMS, measure and record the fan amperage every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average fan amperage for each individual test run. - The operating limit shall be reset as the lowest average fan amperage value corresponding to any of the three test runs. Ongoing compliance with Fan Amperage Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Fan Amperage Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B), Minn. R. 7017.2025]
5.466.20	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit and Flow Rate Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
TREA 177	Line 3 Conveyor Transfer 041 042 Dynamic Wet Scrubber
5.467.1	The Permittee shall vent emissions from EQUI 150 and EQUI 354 to TREA 177 whenever EQUI 150 or EQUI 354 operates, and operate and maintain TREA 177 at all times that any emissions are vented to TREA 177. The Permittee shall document periods of non-operation of the control equipment TREA 177 whenever EQUI 150 or EQUI 354 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.467.2	If the Permittee replaces TREA 177, the replacement control must meet or exceed the control efficiency requirements of TREA 177 as well as comply with all other requirements of TREA 177. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.467.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 95.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.467.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 94.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.467.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 90.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.467.6	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows:

Requirement number	Requirement and citation
	40 CFR 63.9590(c); 40 CFR 63.9590(b)(2); 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (3); 40 CFR 63.9610(a); 40 CFR 63.9622(f); 40 CFR 63.9631(c); 40 CFR 63.9632(b)-(e); 40 CFR 63.9633; 40 CFR 63.9634(a), (f), & (l); 40 CFR 63.9636(a)(1) & (3); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.467.7	Fan amperage $\geq$ 25.2 amperes daily average (Fan Amperage Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(2), Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subp. 14, Minn. R. 7011.8030, Minn. R. 7017.2025]
5.467.8	Water flow rate $\geq$ 7.0 gallons per minute daily average (Flow Rate Limit), unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(2), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B), Minn. R. 7011.8030]
5.467.9	The Permittee shall calculate and record the daily average water flow rate at least once each operating day using the continuous monitor data. If the recorded flow rate is below the required limit, the emissions during that time shall be considered uncontrolled until the daily average flow rate is once again above the required limit. The period of time for which the flow rate is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.467.10	The Permittee shall record the daily average fan amperage at least once each operating day using the continuous monitor data. If the recorded fan amperage is below the required limit, the emissions during that time shall be considered uncontrolled until the daily average fan amperage is once again above the required limit. The period of time for which the fan amperage is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.467.11	Recordkeeping of Fan Amperage and Water Flow Rate: The Permittee shall maintain a continuous written record of the fan amperage and water flow rate readings. The permittee shall record the daily average fan amperage reading and water flow rate reading and whether or not the observed value was within the range specified in this permit. Recorded values outside any range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subps. 4-5]

Requirement number	Requirement and citation
5.467.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded flow rate is below the required rate; - the recorded pressure drop is outside the required operating range; or - the scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop and/or water flow rate to within the permitted range(s), and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the Operation and Maintenance (O & M) Plan for the scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for each scrubber. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.467.13	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the wet scrubber. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.467.14	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the wet scrubber not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.467.15	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording fan amperage and water flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation. [Minn. R. 7007.0800, subp. 4]
5.467.16	The Permittee shall calibrate or replace the fan amperage and flow rate monitors at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.467.17	The Permittee shall operate and maintain the scrubber in accordance with the O & M Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.467.18	Protocol for Resetting the Water Flow Rate Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Water Flow Rate Limit is to be reset, the reset shall be based on the water flow rate values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Flow Rate Limit shall be reset as follows: - Using the CPMS, measure and record the scrubber water flow rate every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average scrubber water flow rate for each individual test run. - if the 3-hour average water flow rate recorded during the test is above the established limit, it shall not be reset and the established value remains the Flow Rate Limit; or - if the 3-hour average water flow rate recorded during the test is lower than the current limit, the Flow Rate Limit shall be reset as the lowest 1-hour average water flow rate corresponding to any of the three test runs. The new Flow Rate Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended.

Requirement number	Requirement and citation
	[Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.467.19	Protocol for Resetting the Fan Amperage Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Fan Amperage Limit is to be reset, the reset shall be based on the fan amperage values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Fan Amperage Limit shall be reset as follows: - Using the CPMS, measure and record the fan amperage every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average fan amperage for each individual test run. - The operating limit shall be reset as the lowest average fan amperage value corresponding to any of the three test runs. Ongoing compliance with Fan Amperage Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Fan Amperage Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B), Minn. R. 7017.2025]
5.467.20	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit and Flow Rate Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
TREA 178	Line 4 Fines Conveyor Dynamic Wet Scrubber
5.468.1	The Permittee shall vent emissions from EQUI 371 to TREA 178 whenever EQUI 371 operates, and operate and maintain TREA 178 at all times that any emissions are vented to TREA 178. The Permittee shall document periods of non-operation of the control equipment TREA 178 whenever EQUI 371 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.468.2	If the Permittee replaces TREA 178, the replacement control must meet or exceed the control efficiency requirements of TREA 178 as well as comply with all other requirements of TREA 178. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.468.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 95.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.468.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 94.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.468.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 90.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.468.6	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9590(c);

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	40 CFR 63.9590(b)(2); 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (3); 40 CFR 63.9610(a); 40 CFR 63.9622(f); 40 CFR 63.9631(c); 40 CFR 63.9632(b)-(e); 40 CFR 63.9633; 40 CFR 63.9634(a), (f), & (l); 40 CFR 63.9636(a)(1) & (3); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.468.7	Fan amperage $\geq$ 86.6 amperes daily average (Fan Amperage Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(2), Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subp. 14, Minn. R. 7011.8030, Minn. R. 7017.2025]
5.468.8	Water flow rate $\geq$ 28 gallons per minute daily average (Flow Rate Limit), unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(2), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B), Minn. R. 7011.8030]
5.468.9	The Permittee shall calculate and record the daily average water flow rate at least once each operating day using the continuous monitor data. If the recorded flow rate is below the required limit, the emissions during that time shall be considered uncontrolled until the daily average flow rate is once again above the required limit. The period of time for which the flow rate is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.468.10	The Permittee shall record the daily average fan amperage at least once each operating day using the continuous monitor data. If the recorded fan amperage is below the required limit, the emissions during that time shall be considered uncontrolled until the daily average fan amperage is once again above the required limit. The period of time for which the fan amperage is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.468.11	Recordkeeping of Fan Amperage and Water Flow Rate: The Permittee shall maintain a continuous written record of the fan amperage and water flow rate readings. The permittee shall record the daily average fan amperage reading and water flow rate reading and whether or not the observed value was within the range specified in this permit. Recorded values outside any range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subps. 4-5]
5.468.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the

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	following occur: - the recorded flow rate is below the required rate; - the recorded pressure drop is outside the required operating range; or - the scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop and/or water flow rate to within the permitted range(s), and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the Operation and Maintenance (O & M) Plan for the scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for each scrubber. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.468.13	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the wet scrubber. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.468.14	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the wet scrubber not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.468.15	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording fan amperage and water flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation. [Minn. R. 7007.0800, subp. 4]
5.468.16	The Permittee shall calibrate or replace the fan amperage and flow rate monitors at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.468.17	The Permittee shall operate and maintain the scrubber in accordance with the O & M Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.468.18	Protocol for Resetting the Water Flow Rate Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Water Flow Rate Limit is to be reset, the reset shall be based on the water flow rate values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Flow Rate Limit shall be reset as follows: - Using the CPMS, measure and record the scrubber water flow rate every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average scrubber water flow rate for each individual test run. - if the 3-hour average water flow rate recorded during the test is above the established limit, it shall not be reset and the established value remains the Flow Rate Limit; or - if the 3-hour average water flow rate recorded during the test is lower than the current limit, the Flow Rate Limit shall be reset as the lowest 1-hour average water flow rate corresponding to any of the three test runs. The new Flow Rate Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]

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5.468.19	Protocol for Resetting the Fan Amperage Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Fan Amperage Limit is to be reset, the reset shall be based on the fan amperage values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Fan Amperage Limit shall be reset as follows: - Using the CPMS, measure and record the fan amperage every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average fan amperage for each individual test run. - The operating limit shall be reset as the lowest average fan amperage value corresponding to any of the three test runs. Ongoing compliance with Fan Amperage Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Fan Amperage Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B), Minn. R. 7017.2025]
5.468.20	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit and Flow Rate Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
TREA 179	Line 5 Fines Conveyor Dynamic Wet Scrubber
5.469.1	The Permittee shall vent emissions from EQUI 42 to TREA 179 whenever EQUI 42 operates, and operate and maintain TREA 179 at all times that any emissions are vented to TREA 179. The Permittee shall document periods of non-operation of the control equipment TREA 179 whenever EQUI 42 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.469.2	If the Permittee replaces TREA 179, the replacement control must meet or exceed the control efficiency requirements of TREA 179 as well as comply with all other requirements of TREA 179. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.469.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 95.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.469.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 94.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.469.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 90.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.469.6	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9590(c); 40 CFR 63.9590(b)(2);

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	40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (3); 40 CFR 63.9610(a); 40 CFR 63.9622(f); 40 CFR 63.9631(c); 40 CFR 63.9632(b)-(e); 40 CFR 63.9633; 40 CFR 63.9634(a), (f), & (l); 40 CFR 63.9636(a)(1) & (3); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.469.7	Fan amperage $\geq$ 86.8 amperes daily average (Fan Amperage Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(2), Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subp.14, Minn. R. 7011.8030, Minn. R. 7017.2025]
5.469.8	Water flow rate $\geq$ 28 gallons per minute daily average (Flow Rate Limit), unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(2), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B), Minn. R. 7011.8030]
5.469.9	The Permittee shall calculate and record the daily average water flow rate at least once each operating day using the continuous monitor data. If the recorded flow rate is below the required limit, the emissions during that time shall be considered uncontrolled until the daily average flow rate is once again above the required limit. The period of time for which the flow rate is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.469.10	The Permittee shall record the daily average fan amperage at least once each operating day using the continuous monitor data. If the recorded fan amperage is below the required limit, the emissions during that time shall be considered uncontrolled until the daily average fan amperage is once again above the required limit. The period of time for which the fan amperage is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.469.11	Recordkeeping of Fan Amperage and Water Flow Rate: The Permittee shall maintain a continuous written record of the fan amperage and water flow rate readings. The permittee shall record the daily average fan amperage reading and water flow rate reading and whether or not the observed value was within the range specified in this permit. Recorded values outside any range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subps. 4-5]
5.469.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur:

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	- the recorded flow rate is below the required rate; - the recorded pressure drop is outside the required operating range; or - the scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop and/or water flow rate to within the permitted range(s), and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the Operation and Maintenance (O & M) Plan for the scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for each scrubber. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.469.13	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the wet scrubber. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.469.14	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the wet scrubber not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.469.15	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording fan amperage and water flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation. [Minn. R. 7007.0800, subp. 4]
5.469.16	The Permittee shall calibrate or replace the fan amperage and flow rate monitors at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.469.17	The Permittee shall operate and maintain the scrubber in accordance with the O & M Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.469.18	Protocol for Resetting the Water Flow Rate Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Water Flow Rate Limit is to be reset, the reset shall be based on the water flow rate values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Flow Rate Limit shall be reset as follows: - Using the CPMS, measure and record the scrubber water flow rate every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average scrubber water flow rate for each individual test run. - if the 3-hour average water flow rate recorded during the test is above the established limit, it shall not be reset and the established value remains the Flow Rate Limit; or - if the 3-hour average water flow rate recorded during the test is lower than the current limit, the Flow Rate Limit shall be reset as the lowest 1-hour average water flow rate corresponding to any of the three test runs. The new Flow Rate Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.469.19	Protocol for Resetting the Fan Amperage Limit: The Permittee shall conduct performance testing to

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	measure the PM emission rate as required elsewhere in this permit. If the established Fan Amperage Limit is to be reset, the reset shall be based on the fan amperage values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Fan Amperage Limit shall be reset as follows: - Using the CPMS, measure and record the fan amperage every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average fan amperage for each individual test run. - The operating limit shall be reset as the lowest average fan amperage value corresponding to any of the three test runs. Ongoing compliance with Fan Amperage Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Fan Amperage Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B), Minn. R. 7017.2025]
5.469.20	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit and Flow Rate Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
TREA 185	Agglomerator III Line 7 Conveyor Transfer Scrubber
5.470.1	The Permittee shall vent emissions from EQUI 122 and EQUI 123 to TREA 185 whenever EQUI 122 or EQUI 123 operates, and operate and maintain TREA 185 at all times that any emissions are vented to TREA 185. The Permittee shall document periods of non-operation of the control equipment TREA 185 whenever EQUI 122 or EQUI 123 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.470.2	If the Permittee replaces TREA 185, the replacement control must meet or exceed the control efficiency requirements of TREA 185 as well as comply with all other requirements of TREA 185. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.470.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 95.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.470.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 94.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.470.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 90.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.470.6	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9590(c); 40 CFR 63.9590(b)(1);

Requirement number	Requirement and citation
	40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (3); 40 CFR 63.9610(a); 40 CFR 63.9622(f); 40 CFR 63.9631(b); 40 CFR 63.9632(b)-(e); 40 CFR 63.9633; 40 CFR 63.9634(a), (e), & (j); 40 CFR 63.9636(a)(1) & (3); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.470.7	Pressure Drop $\geq$ 5.6 inches of water daily average (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.470.8	Water flow rate $\geq$ 130 gallons per minute daily average (Flow Rate Limit), unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.470.9	The Permittee shall calculate and record the daily average water flow rate at least once each operating day using the continuous monitor data. If the recorded flow rate is below the required limit, the emissions during that time shall be considered uncontrolled until the flow rate is once again above the required limit. The period of time for which the flow rate is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.470.10	The Permittee shall record the daily average pressure drop at least once each operating day using the continuous monitor data. If the recorded pressure drop is below the required limit, the emissions during that time shall be considered uncontrolled until the pressure drop is once again above the required limit. The period of time for which the pressure drop is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.470.11	Recordkeeping of Pressure Drop and Water Flow Rate: The Permittee shall maintain a continuous written record of the pressure drop and water flow rate readings. The permittee shall record the daily average pressure drop reading and water flow rate reading and whether or not the observed value was within the range specified in this permit. Recorded values outside any range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subps. 4-5]
5.470.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur:

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	- the recorded flow rate is below the required rate; - the recorded pressure drop is outside the required operating range; or - the scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop and/or water flow rate to within the permitted range(s), and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the Operation and Maintenance (O & M) Plan for the scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for each scrubber. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.470.13	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the wet scrubber. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.470.14	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the wet scrubber not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.470.15	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop and water flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation. [Minn. R. 7007.0800, subp. 4]
5.470.16	The Permittee shall calibrate or replace the pressure drop and flow rate monitors at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.470.17	The Permittee shall operate and maintain the scrubber in accordance with the O & M Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.470.18	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Pressure Drop Range Limit shall be reset as follows: - Using the CPMS, measure and record the pressure drop every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average pressure drop for each individual test run. - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is below the minimum value of the established range, the Pressure Drop Limit shall be reset as the lowest 1-hour average pressure drop corresponding to any of the three test runs. Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results

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	and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B), Minn. R. 7017.2025]
5.470.19	Protocol for Resetting the Water Flow Rate Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Water Flow Rate Limit is to be reset, the reset shall be based on the water flow rate values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Flow Rate Limit shall be reset as follows: - Using the CPMS, measure and record the scrubber water flow rate every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average scrubber water flow rate for each individual test run. - if the 3-hour average water flow rate recorded during the test is above the established limit, it shall not be reset and the established value remains the Flow Rate Limit; or - if the 3-hour average water flow rate recorded during the test is lower than the current limit, the Flow Rate Limit shall be reset as the lowest 1-hour average water flow rate corresponding to any of the three test runs. The new Flow Rate Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.470.20	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
5.470.21	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit and Flow Rate Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
TREA 187	Step III Storage Bin Line 15, 16 Scrubber
5.471.1	The Permittee shall vent emissions from EQUI 137, EQUI 138, EQUI 139, EQUI 247, EQUI 248, EQUI 249, and EQUI 250 to TREA 187 whenever EQUI 137, EQUI 138, EQUI 139, EQUI 247, EQUI 248, EQUI 249, or EQUI 250 operates, and operate and maintain TREA 187 at all times that any emissions are vented to TREA 187. The Permittee shall document periods of non-operation of the control equipment TREA 187 whenever EQUI 137, EQUI 138, EQUI 139, EQUI 247, EQUI 248, EQUI 249, or EQUI 250 is operating. Note: TREA 217 will replace TREA 187. Prior to the startup and operation of TREA 217, the Permittee shall follow the requirements for TREA 187. After the startup and operation of TREA 217, TREA 187 shall be shut down, and the Permittee shall follow requirements for TREA 217. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.471.2	If the Permittee replaces TREA 187, the replacement control must meet or exceed the control efficiency requirements of TREA 187 as well as comply with all other requirements of TREA 187. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]

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5.471.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter $\geq$ 95.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.471.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron $\geq$ 94.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.471.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron $\geq$ 90.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.471.6	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9590(c); 40 CFR 63.9590(b)(1); 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (3); 40 CFR 63.9610(a); 40 CFR 63.9622(f); 40 CFR 63.9631(b); 40 CFR 63.9632(b)-(e); 40 CFR 63.9633; 40 CFR 63.9634(a), (e), & (j); 40 CFR 63.9636(a)(1) & (3); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.471.7	Pressure Drop $\geq$ 5.3 inches of water daily average (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.471.8	Water flow rate $\geq$ 58 gallons per minute daily average (Flow Rate Limit), unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.471.9	The Permittee shall calculate and record the daily average water flow rate at least once each operating day using the continuous monitor data. If the recorded flow rate is below the required limit, the emissions during that time shall be considered uncontrolled until the flow rate is once again above the required limit. The period of time for which the flow rate is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]

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5.471.10	The Permittee shall record the daily average pressure drop at least once each operating day using the continuous monitor data. If the recorded pressure drop is below the required limit, the emissions during that time shall be considered uncontrolled until the pressure drop is once again above the required limit. The period of time for which the pressure drop is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.471.11	Recordkeeping of Pressure Drop and Water Flow Rate: The Permittee shall maintain a continuous written record of the pressure drop and water flow rate readings. The permittee shall record the daily average pressure drop reading and water flow rate reading and whether or not the observed value was within the range specified in this permit. Recorded values outside any range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subps. 4-5]
5.471.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded flow rate is below the required rate; - the recorded pressure drop is outside the required operating range; or - the scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop and/or water flow rate to within the permitted range(s), and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the Operation and Maintenance (O & M) Plan for the scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for each scrubber. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.471.13	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the wet scrubber. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.471.14	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the wet scrubber not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.471.15	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop and water flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation. [Minn. R. 7007.0800, subp. 4]
5.471.16	The Permittee shall calibrate or replace the pressure drop and flow rate monitors at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.471.17	The Permittee shall operate and maintain the scrubber in accordance with the O & M Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.471.18	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated.

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	The established Pressure Drop Range Limit shall be reset as follows: - Using the CPMS, measure and record the pressure drop every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average pressure drop for each individual test run. - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is below the minimum value of the established range, the Pressure Drop Limit shall be reset as the lowest 1-hour average pressure drop corresponding to any of the three test runs. Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B), Minn. R. 7017.2025]
5.471.19	Protocol for Resetting the Water Flow Rate Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Water Flow Rate Limit is to be reset, the reset shall be based on the water flow rate values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Flow Rate Limit shall be reset as follows: - Using the CPMS, measure and record the scrubber water flow rate every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average scrubber water flow rate for each individual test run. - if the 3-hour average water flow rate recorded during the test is above the established limit, it shall not be reset and the established value remains the Flow Rate Limit; or - if the 3-hour average water flow rate recorded during the test is lower than the current limit, the Flow Rate Limit shall be reset as the lowest 1-hour average water flow rate corresponding to any of the three test runs. The new Flow Rate Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.471.20	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
5.471.21	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit and Flow Rate Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
TREA 188	Storage Bins Lines 1,2 Scrubber
5.472.1	The Permittee shall vent emissions from EQUI 209, EQUI 210, EQUI 211, EQUI 212, EQUI 213, EQUI 214, and EQUI 215 to TREA 188 whenever EQUI 209, EQUI 210, EQUI 211, EQUI 212, EQUI 213, EQUI 214, or EQUI 215 operates, and operate and maintain TREA 188 at all times that any emissions are vented to TREA 188. The Permittee shall document periods of non-operation of the control equipment TREA 188 whenever EQUI 209, EQUI 210, EQUI 211, EQUI 212, EQUI 213, EQUI 214, or

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	EQUI 215 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.472.2	If the Permittee replaces TREA 188, the replacement control must meet or exceed the control efficiency requirements of TREA 188 as well as comply with all other requirements of TREA 188. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.472.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 95.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.472.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 94.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.472.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 90.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.472.6	Pressure Drop ≥ 5.0 inches of water daily average (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.472.7	Water flow rate ≥ 50 gallons per minute daily average (Flow Rate Limit) unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3, and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.472.8	The Permittee shall calculate and record the daily average water flow rate at least once each operating day using the continuous monitor data. If the recorded flow rate is below the required limit, the emissions during that time shall be considered uncontrolled until the flow rate is once again above the required limit. The period of time for which the flow rate is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.472.9	The Permittee shall record the daily average pressure drop at least once each operating day using the continuous monitor data. If the recorded pressure drop is below the required limit, the emissions during that time shall be considered uncontrolled until the pressure drop is once again above the required limit. The period of time for which the pressure drop is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.472.10	Recordkeeping of Pressure Drop and Water Flow Rate: The Permittee shall maintain a continuous written record of the pressure drop and water flow rate readings. The permittee shall record the daily average pressure drop reading and water flow rate reading and whether or not the observed value was within the range specified in this permit. Recorded values outside any range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subps. 4-5]
5.472.11	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded flow rate is below the required rate; - the recorded pressure drop is outside the required operating range; or - the scrubber or any of its components are found during the inspections to need repair.

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	Corrective actions shall return the pressure drop and/or water flow rate to within the permitted range(s), and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the Operation and Maintenance (O & M) Plan for the scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for each scrubber. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.472.12	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the wet scrubber. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.472.13	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the wet scrubber not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.472.14	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop and water flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation. [Minn. R. 7007.0800, subp. 4]
5.472.15	The Permittee shall calibrate or replace the pressure drop and flow rate monitors at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.472.16	The Permittee shall operate and maintain the scrubber in accordance with the O & M Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.472.17	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Pressure Drop Range Limit shall be reset as follows: - Using the CPMS, measure and record the pressure drop every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average pressure drop for each individual test run. - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is below the minimum value of the established range, the Pressure Drop Limit shall be reset as the lowest 1-hour average pressure drop corresponding to any of the three test runs. Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B), Minn. R. 7017.2025]
5.472.18	Protocol for Resetting the Water Flow Rate Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Water Flow

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	Rate Limit is to be reset, the reset shall be based on the water flow rate values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Flow Rate Limit shall be reset as follows: - Using the CPMS, measure and record the scrubber water flow rate every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average scrubber water flow rate for each individual test run. - if the 3-hour average water flow rate recorded during the test is above the established limit, it shall not be reset and the established value remains the Flow Rate Limit; or - if the 3-hour average water flow rate recorded during the test is lower than the current limit, the Flow Rate Limit shall be reset as the lowest 1-hour average water flow rate corresponding to any of the three test runs. The new Flow Rate Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.472.19	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
5.472.20	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit and Flow Rate Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
TREA 189	Storage Bins Lines 3,4 Scrubber
5.473.1	The Permittee shall vent emissions from EQUI 19, EQUI 216, EQUI 217, EQUI 218, EQUI 219, EQUI 220, and EQUI 221 to TREA 189 whenever EQUI 19, EQUI 216, EQUI 217, EQUI 218, EQUI 219, EQUI 220, or EQUI 221 operates, and operate and maintain TREA 189 at all times that any emissions are vented to TREA 189. The Permittee shall document periods of non-operation of the control equipment TREA 189 whenever EQUI 19, EQUI 216, EQUI 217, EQUI 218, EQUI 219, EQUI 220, or EQUI 221 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.473.2	If the Permittee replaces TREA 189, the replacement control must meet or exceed the control efficiency requirements of TREA 189 as well as comply with all other requirements of TREA 189. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.473.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 95.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.473.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 94.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.473.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 90.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R.

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	7007.0800, subp. 2(A) & (B)]
5.473.6	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9590(c); 40 CFR 63.9590(b)(1); 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (3); 40 CFR 63.9610(a); 40 CFR 63.9622(f); 40 CFR 63.9631(b); 40 CFR 63.9632(b)-(e); 40 CFR 63.9633; 40 CFR 63.9634(a), (e), & (j); 40 CFR 63.9636(a)(1) & (3); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.473.7	Pressure Drop $\geq$ 4.1 inches of water daily average (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.473.8	Water flow rate $\geq$ 42 gallons per minute daily average (Flow Rate Limit), unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.473.9	The Permittee shall calculate and record the daily average water flow rate at least once each operating day using the continuous monitor data. If the recorded flow rate is below the required limit, the emissions during that time shall be considered uncontrolled until the flow rate is once again above the required limit. The period of time for which the flow rate is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.473.10	The Permittee shall record the daily average pressure drop at least once each operating day using the continuous monitor data. If the recorded pressure drop is below the required limit, the emissions during that time shall be considered uncontrolled until the pressure drop is once again above the required limit. The period of time for which the pressure drop is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.473.11	Recordkeeping of Pressure Drop and Water Flow Rate: The Permittee shall maintain a continuous written record of the pressure drop and water flow rate readings. The permittee shall record the daily

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	average pressure drop reading and water flow rate reading and whether or not the observed value was within the range specified in this permit. Recorded values outside any range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subps. 4-5]
5.473.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded flow rate is below the required rate; - the recorded pressure drop is outside the required operating range; or - the scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop and/or water flow rate to within the permitted range(s), and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the Operation and Maintenance (O & M) Plan for the scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for each scrubber. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.473.13	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the wet scrubber. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.473.14	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the wet scrubber not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.473.15	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop and water flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation. [Minn. R. 7007.0800, subp. 4]
5.473.16	The Permittee shall calibrate or replace the pressure drop and flow rate monitors at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.473.17	The Permittee shall operate and maintain the scrubber in accordance with the O & M Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.473.18	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Pressure Drop Range Limit shall be reset as follows: - Using the CPMS, measure and record the pressure drop every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average pressure drop for each individual test run. - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is below the minimum value of the established range, the

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	Pressure Drop Limit shall be reset as the lowest 1-hour average pressure drop corresponding to any of the three test runs. Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B), Minn. R. 7017.2025]
5.473.19	Protocol for Resetting the Water Flow Rate Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Water Flow Rate Limit is to be reset, the reset shall be based on the water flow rate values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Flow Rate Limit shall be reset as follows: - Using the CPMS, measure and record the scrubber water flow rate every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average scrubber water flow rate for each individual test run. - if the 3-hour average water flow rate recorded during the test is above the established limit, it shall not be reset and the established value remains the Flow Rate Limit; or - if the 3-hour average water flow rate recorded during the test is lower than the current limit, the Flow Rate Limit shall be reset as the lowest 1-hour average water flow rate corresponding to any of the three test runs. The new Flow Rate Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.473.20	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
5.473.21	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit and Flow Rate Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
TREA 190	Storage Bins Lines 5,6 Scrubber
5.474.1	The Permittee shall vent emissions from EQUI 222, EQUI 223, EQUI 224, and EQUI 225 to TREA 190 whenever EQUI 222, EQUI 223, EQUI 224, or EQUI 225 operates, and operate and maintain TREA 190 at all times that any emissions are vented to TREA 190. The Permittee shall document periods of non-operation of the control equipment TREA 190 whenever EQUI 222, EQUI 223, EQUI 224, or EQUI 225 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.474.2	If the Permittee replaces TREA 190, the replacement control must meet or exceed the control efficiency requirements of TREA 190 as well as comply with all other requirements of TREA 190. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]

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5.474.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 95.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.474.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 94.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.474.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 90.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.474.6	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9590(c); 40 CFR 63.9590(b)(1); 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (3); 40 CFR 63.9610(a); 40 CFR 63.9622(f); 40 CFR 63.9631(b); 40 CFR 63.9632(b)-(e); 40 CFR 63.9633; 40 CFR 63.9634(a), (e), & (j); 40 CFR 63.9636(a)(1) & (3); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.474.7	Pressure Drop ≥ 4.1 inches of water daily average (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.474.8	Water flow rate ≥ 42 gallons per minute daily average (Flow Rate Limit), unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.474.9	The Permittee shall calculate and record the daily average water flow rate at least once each operating day using the continuous monitor data. If the recorded flow rate is below the required limit, the emissions during that time shall be considered uncontrolled until the flow rate is once again above the required limit. The period of time for which the flow rate is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]

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5.474.10	The Permittee shall record the daily average pressure drop at least once each operating day using the continuous monitor data. If the recorded pressure drop is below the required limit, the emissions during that time shall be considered uncontrolled until the pressure drop is once again above the required limit. The period of time for which the pressure drop is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.474.11	Recordkeeping of Pressure Drop and Water Flow Rate: The Permittee shall maintain a continuous written record of the pressure drop and water flow rate readings. The permittee shall record the daily average pressure drop reading and water flow rate reading and whether or not the observed value was within the range specified in this permit. Recorded values outside any range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subps. 4-5]
5.474.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded flow rate is below the required rate; - the recorded pressure drop is outside the required operating range; or - the scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop and/or water flow rate to within the permitted range(s), and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the Operation and Maintenance (O & M) Plan for the scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for each scrubber. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.474.13	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the wet scrubber. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.474.14	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the wet scrubber not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.474.15	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop and water flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation. [Minn. R. 7007.0800, subp. 4]
5.474.16	The Permittee shall calibrate or replace the pressure drop and flow rate monitors at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.474.17	The Permittee shall operate and maintain the scrubber in accordance with the O & M Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.474.18	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated.

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	The established Pressure Drop Range Limit shall be reset as follows: - Using the CPMS, measure and record the pressure drop every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average pressure drop for each individual test run. - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is below the minimum value of the established range, the Pressure Drop Limit shall be reset as the lowest 1-hour average pressure drop corresponding to any of the three test runs. Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B), Minn. R. 7017.2025]
5.474.19	Protocol for Resetting the Water Flow Rate Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Water Flow Rate Limit is to be reset, the reset shall be based on the water flow rate values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Flow Rate Limit shall be reset as follows: - Using the CPMS, measure and record the scrubber water flow rate every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average scrubber water flow rate for each individual test run. - if the 3-hour average water flow rate recorded during the test is above the established limit, it shall not be reset and the established value remains the Flow Rate Limit; or - if the 3-hour average water flow rate recorded during the test is lower than the current limit, the Flow Rate Limit shall be reset as the lowest 1-hour average water flow rate corresponding to any of the three test runs. The new Flow Rate Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.474.20	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
5.474.21	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit and Flow Rate Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
TREA 191	Storage Bins Lines 7,8 Scrubber
5.475.1	The Permittee shall vent emissions from EQUI 23, EQUI 24, EQUI 226, EQUI 227, EQUI 228, EQUI 229, and EQUI 230 to TREA 191 whenever EQUI 23, EQUI 24, EQUI 226, EQUI 227, EQUI 228, EQUI 229, or EQUI 230 operates, and operate and maintain TREA 191 at all times that any emissions are vented to TREA 191. The Permittee shall document periods of non-operation of the control equipment TREA 191 whenever EQUI 23, EQUI 24, EQUI 226, EQUI 227, EQUI 228, EQUI 229, or EQUI 230 is operating.

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	[Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.475.2	If the Permittee replaces TREA 191, the replacement control must meet or exceed the control efficiency requirements of TREA 191 as well as comply with all other requirements of TREA 191. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.475.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 95.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.475.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 94.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.475.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 90.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.475.6	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9590(c); 40 CFR 63.9590(b)(1); 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (3); 40 CFR 63.9610(a); 40 CFR 63.9622(f); 40 CFR 63.9631(b); 40 CFR 63.9632(b)-(e); 40 CFR 63.9633; 40 CFR 63.9634(a), (e), & (j); 40 CFR 63.9636(a)(1) & (3); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.475.7	Pressure Drop ≥ 4.1 inches of water daily average (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]

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5.475.8	Water flow rate $\geq$ 42 gallons per minute daily average (Flow Rate Limit), unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.475.9	The Permittee shall calculate and record the daily average water flow rate at least once each operating day using the continuous monitor data. If the recorded flow rate is below the required limit, the emissions during that time shall be considered uncontrolled until the flow rate is once again above the required limit. The period of time for which the flow rate is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.475.10	The Permittee shall record the daily average pressure drop at least once each operating day using the continuous monitor data. If the recorded pressure drop is below the required limit, the emissions during that time shall be considered uncontrolled until the pressure drop is once again above the required limit. The period of time for which the pressure drop is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.475.11	Recordkeeping of Pressure Drop and Water Flow Rate: The Permittee shall maintain a continuous written record of the pressure drop and water flow rate readings. The permittee shall record the daily average pressure drop reading and water flow rate reading and whether or not the observed value was within the range specified in this permit. Recorded values outside any range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subps. 4-5]
5.475.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded flow rate is below the required rate; - the recorded pressure drop is outside the required operating range; or - the scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop and/or water flow rate to within the permitted range(s), and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the Operation and Maintenance (O & M) Plan for the scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for each scrubber. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.475.13	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the wet scrubber. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.475.14	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the wet scrubber not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.475.15	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop and water flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation. [Minn. R. 7007.0800, subp. 4]
5.475.16	The Permittee shall calibrate or replace the pressure drop and flow rate monitors at least once every

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	12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.475.17	The Permittee shall operate and maintain the scrubber in accordance with the O & M Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.475.18	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Pressure Drop Range Limit shall be reset as follows: - Using the CPMS, measure and record the pressure drop every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average pressure drop for each individual test run. - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is below the minimum value of the established range, the Pressure Drop Limit shall be reset as the lowest 1-hour average pressure drop corresponding to any of the three test runs. Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B), Minn. R. 7017.2025]
5.475.19	Protocol for Resetting the Water Flow Rate Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Water Flow Rate Limit is to be reset, the reset shall be based on the water flow rate values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Flow Rate Limit shall be reset as follows: - Using the CPMS, measure and record the scrubber water flow rate every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average scrubber water flow rate for each individual test run. - if the 3-hour average water flow rate recorded during the test is above the established limit, it shall not be reset and the established value remains the Flow Rate Limit; or - if the 3-hour average water flow rate recorded during the test is lower than the current limit, the Flow Rate Limit shall be reset as the lowest 1-hour average water flow rate corresponding to any of the three test runs. The new Flow Rate Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.475.20	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a

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	permit amendment incorporating the change. [Minn. R. 7017.2025]
5.475.21	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit and Flow Rate Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
TREA 192	Storage Bins Lines 9,10 Scrubber
5.476.1	The Permittee shall vent emissions from EQUI 25, EQUI 26, EQUI 170, EQUI 231, EQUI 232, EQUI 233, and EQUI 234 to TREA 192 whenever EQUI 25, EQUI 26, EQUI 170, EQUI 231, EQUI 232, EQUI 233, or EQUI 234 operates, and operate and maintain TREA 192 at all times that any emissions are vented to TREA 192. The Permittee shall document periods of non-operation of the control equipment TREA 192 whenever EQUI 25, EQUI 26, EQUI 170, EQUI 231, EQUI 232, EQUI 233, or EQUI 234 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.476.2	If the Permittee replaces TREA 192, the replacement control must meet or exceed the control efficiency requirements of TREA 192 as well as comply with all other requirements of TREA 192. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.476.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 95.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.476.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 94.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.476.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 90.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.476.6	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9590(c); 40 CFR 63.9590(b)(1); 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (3); 40 CFR 63.9610(a); 40 CFR 63.9622(f); 40 CFR 63.9631(b); 40 CFR 63.9632(b)-(e); 40 CFR 63.9633; 40 CFR 63.9634(a), (e), & (j); 40 CFR 63.9636(a)(1) & (3); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652.

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	A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.476.7	Pressure Drop $\geq$ 4.1 inches of water daily average (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.476.8	Water flow rate $\geq$ 42 gallons per minute daily average (Flow Rate Limit), unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3, and 40 CFR 63.9622(f) as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.476.9	The Permittee shall calculate and record the daily average water flow rate at least once each operating day using the continuous monitor data. If the recorded flow rate is below the required limit, the emissions during that time shall be considered uncontrolled until the flow rate is once again above the required limit. The period of time for which the flow rate is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.476.10	The Permittee shall record the daily average pressure drop at least once each operating day using the continuous monitor data. If the recorded pressure drop is below the required limit, the emissions during that time shall be considered uncontrolled until the pressure drop is once again above the required limit. The period of time for which the pressure drop is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.476.11	Recordkeeping of Pressure Drop and Water Flow Rate: The Permittee shall maintain a continuous written record of the pressure drop and water flow rate readings. The permittee shall record the daily average pressure drop reading and water flow rate reading and whether or not the observed value was within the range specified in this permit. Recorded values outside any range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subs. 4-5]
5.476.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded flow rate is below the required rate; - the recorded pressure drop is outside the required operating range; or - the scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop and/or water flow rate to within the permitted range(s), and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the Operation and Maintenance (O & M) Plan for the scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for each scrubber. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.476.13	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the wet scrubber. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subs. 4-5]

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5.476.14	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the wet scrubber not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.476.15	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop and water flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation. [Minn. R. 7007.0800, subp. 4]
5.476.16	The Permittee shall calibrate or replace the pressure drop and flow rate monitors at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.476.17	The Permittee shall operate and maintain the scrubber in accordance with the O & M Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.476.18	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Pressure Drop Range Limit shall be reset as follows: - Using the CPMS, measure and record the pressure drop every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average pressure drop for each individual test run. - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is below the minimum value of the established range, the Pressure Drop Limit shall be reset as the lowest 1-hour average pressure drop corresponding to any of the three test runs. Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B), Minn. R. 7017.2025]
5.476.19	Protocol for Resetting the Water Flow Rate Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Water Flow Rate Limit is to be reset, the reset shall be based on the water flow rate values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Flow Rate Limit shall be reset as follows: - Using the CPMS, measure and record the scrubber water flow rate every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average scrubber water flow rate for each individual test run. - if the 3-hour average water flow rate recorded during the test is above the established limit, it shall not be reset and the established value remains the Flow Rate Limit; or

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	- if the 3-hour average water flow rate recorded during the test is lower than the current limit, the Flow Rate Limit shall be reset as the lowest 1-hour average water flow rate corresponding to any of the three test runs. The new Flow Rate Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.476.20	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
5.476.21	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit and Flow Rate Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
TREA 193	Storage Bins Lines 11,12 Scrubber
5.477.1	The Permittee shall vent emissions from EQUI 235, EQUI 236, EQUI 237, EQUI 238, and EQUI 239 to TREA 193 whenever EQUI 235, EQUI 236, EQUI 237, EQUI 238, or EQUI 239 operates, and operate and maintain TREA 193 at all times that any emissions are vented to TREA 193. The Permittee shall document periods of non-operation of the control equipment TREA 193 whenever EQUI 235, EQUI 236, EQUI 237, EQUI 238, or EQUI 239 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.477.2	If the Permittee replaces TREA 193, the replacement control must meet or exceed the control efficiency requirements of TREA 193 as well as comply with all other requirements of TREA 193. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.477.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 95.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.477.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 94.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.477.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 90.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.477.6	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9590(c); 40 CFR 63.9590(b)(1); 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (3); 40 CFR 63.9610(a); 40 CFR 63.9622(f);

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	40 CFR 63.9631(b); 40 CFR 63.9632(b)-(e); 40 CFR 63.9633; 40 CFR 63.9634(a), (e), & (j); 40 CFR 63.9636(a)(1) & (3); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.477.7	Pressure Drop $\geq$ 4.1 inches of water daily average (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.477.8	Water flow rate $\geq$ 42 gallons per minute daily average (Flow Rate Limit), unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3 and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.477.9	The Permittee shall calculate and record the daily average water flow rate at least once each operating day using the continuous monitor data. If the recorded flow rate is below the required limit, the emissions during that time shall be considered uncontrolled until the flow rate is once again above the required limit. The period of time for which the flow rate is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.477.10	The Permittee shall record the daily average pressure drop at least once each operating day using the continuous monitor data. If the recorded pressure drop is below the required limit, the emissions during that time shall be considered uncontrolled until the pressure drop is once again above the required limit. The period of time for which the pressure drop is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.477.11	Recordkeeping of Pressure Drop and Water Flow Rate: The Permittee shall maintain a continuous written record of the pressure drop and water flow rate readings. The permittee shall record the daily average pressure drop reading and water flow rate reading and whether or not the observed value was within the range specified in this permit. Recorded values outside any range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subs. 4-5]
5.477.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded flow rate is below the required rate; - the recorded pressure drop is outside the required operating range; or - the scrubber or any of its components are found during the inspections to need repair.

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	Corrective actions shall return the pressure drop and/or water flow rate to within the permitted range(s), and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the Operation and Maintenance (O & M) Plan for the scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for each scrubber. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.477.13	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the wet scrubber. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.477.14	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the wet scrubber not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.477.15	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop and water flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation. [Minn. R. 7007.0800, subp. 4]
5.477.16	The Permittee shall calibrate or replace the pressure drop and flow rate monitors at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.477.17	The Permittee shall operate and maintain the scrubber in accordance with the O & M Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.477.18	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Pressure Drop Range Limit shall be reset as follows: - Using the CPMS, measure and record the pressure drop every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average pressure drop for each individual test run. - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is below the minimum value of the established range, the Pressure Drop Limit shall be reset as the lowest 1-hour average pressure drop corresponding to any of the three test runs. Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B), Minn. R. 7017.2025]
5.477.19	Protocol for Resetting the Water Flow Rate Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Water Flow

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	Rate Limit is to be reset, the reset shall be based on the water flow rate values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Flow Rate Limit shall be reset as follows: - Using the CPMS, measure and record the scrubber water flow rate every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average scrubber water flow rate for each individual test run. - if the 3-hour average water flow rate recorded during the test is above the established limit, it shall not be reset and the established value remains the Flow Rate Limit; or - if the 3-hour average water flow rate recorded during the test is lower than the current limit, the Flow Rate Limit shall be reset as the lowest 1-hour average water flow rate corresponding to any of the three test runs. The new Flow Rate Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.477.20	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
5.477.21	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit and Flow Rate Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
TREA 194	Step I Tertiary Crusher Line 1 Baghouse
5.478.1	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (2); 40 CFR 63.9610(a); 40 CFR 63.9631(a) (bag leak detection system required); 40 CFR 63.9631(a)(1)-(6) & (8); 40 CFR 63.9632(a); 40 CFR 63.9633; 40 CFR 63.9634(a) & (d); 40 CFR 63.9636(a)(1) & (2); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R.

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	7007.1150-7007.1500, Minn. R. 7011.8030]
5.478.2	The Permittee shall vent emissions from EQUI 386 to TREA 194 whenever EQUI 386 operates, and operate and maintain TREA 194 at all times that any emissions are vented to TREA 194. The Permittee shall document periods of non-operation of the control equipment TREA whenever EQUI 386 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.478.3	If the Permittee replaces TREA 194, the replacement control must meet or exceed the control efficiency requirements of TREA 194 as well as comply with all other requirements of TREA 194. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.478.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.478.5	The Permittee shall operate and maintain a bag leak detector at all times that the fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan. [Minn. R. 7007.0800, subp. (14), Minn. R. 7007.0800, subp. 2(A) & (B)]
5.478.6	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.478.7	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.478.8	Pressure Drop ≥ 0.5 and ≤ 8.0 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. The Permittee shall record the pressure drop at least once every 24 hours when in operation. [40 CFR 63.9631(a)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.478.9	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.478.10	Pressure Drop Daily Inspections and Recordkeeping: At least once each operating day, the Permittee must read and record the pressure drop across the cartridge filter. The Permittee must record the time and date of each pressure drop reading and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5]
5.478.11	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the alarm for the bag leak detector is triggered; or - the recorded pressure drop is outside the required operating range; or

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	- the fabric filter or any of its components are found during the inspections to need repair. Corrective actions must determine and correct the cause of the bag leak detector alarm, return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.478.12	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.478.13	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.478.14	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.478.15	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.478.16	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time. The established Pressure Drop Range Limit shall be reset as follows: - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]

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5.478.17	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.478.18	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
TREA 195	Step I Tertiary Crusher Line 2 Baghouse
5.479.1	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (2); 40 CFR 63.9610(a); 40 CFR 63.9631(a) (bag leak detection system required); 40 CFR 63.9631(a)(1)-(6) & (8); 40 CFR 63.9632(a); 40 CFR 63.9633; 40 CFR 63.9634(a) & (d); 40 CFR 63.9636(a)(1) & (2); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.479.2	The Permittee shall vent emissions from EQUI 388 to TREA 195 whenever EQUI 388 operates, and operate and maintain TREA 195 at all times that any emissions are vented to TREA 195. The Permittee shall document periods of non-operation of the control equipment TREA 195 whenever EQUI 388 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.479.3	If the Permittee replaces TREA 195, the replacement control must meet or exceed the control efficiency requirements of TREA 195 as well as comply with all other requirements of TREA195. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.479.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter $\geq$ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]

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5.479.5	The Permittee shall operate and maintain a bag leak detector at all times that the fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan. [Minn. R. 7007.0800, subp. (14), Minn. R. 7007.0800, subp. 2(A) & (B)]
5.479.6	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron $\geq$ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.479.7	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron $\geq$ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.479.8	Pressure Drop $\geq$ 0.5 and $\leq$ 8.0 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. The Permittee shall record the pressure drop at least once every 24 hours when in operation. [40 CFR 63.9631(a)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.479.9	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.479.10	Pressure Drop Daily Inspections and Recordkeeping: At least once each operating day, the Permittee must read and record the pressure drop across the cartridge filter. The Permittee must record the time and date of each pressure drop reading and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5]
5.479.11	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the alarm for the bag leak detector is triggered; or - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions must determine and correct the cause of the bag leak detector alarm, return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.479.12	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.479.13	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.479.14	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions

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	taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.479.15	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.479.16	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time. The established Pressure Drop Range Limit shall be reset as follows: - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.479.17	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.479.18	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
TREA 196	Step I Tertiary Crusher Line 3 Baghouse
5.480.1	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (2); 40 CFR 63.9610(a); 40 CFR 63.9631(a) (bag leak detection system required); 40 CFR 63.9631(a)(1)-(6) & (8);

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	40 CFR 63.9632(a); 40 CFR 63.9633; 40 CFR 63.9634(a) & (d); 40 CFR 63.9636(a)(1) & (2); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.480.2	The Permittee shall vent emissions from EQUI 336 to TREA 196 whenever EQUI 336 operates, and operate and maintain TREA 196 at all times that any emissions are vented to TREA 196. The Permittee shall document periods of non-operation of the control equipment TREA 196 whenever EQUI 336 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.480.3	If the Permittee replaces TREA 196, the replacement control must meet or exceed the control efficiency requirements of TREA 196 as well as comply with all other requirements of TREA 196. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.480.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.480.5	The Permittee shall operate and maintain a bag leak detector at all times that the fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan. [Minn. R. 7007.0800, subp. (14), Minn. R. 7007.0800, subp. 2(A) & (B)]
5.480.6	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.480.7	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.480.8	Pressure Drop ≥ 0.5 and ≤ 8.0 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. The Permittee shall record the pressure drop at least once every 24 hours when in operation. [40 CFR

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	63.9631(a)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.480.9	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.480.10	Pressure Drop Daily Inspections and Recordkeeping: At least once each operating day, the Permittee must read and record the pressure drop across the cartridge filter. The Permittee must record the time and date of each pressure drop reading and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5]
5.480.11	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the alarm for the bag leak detector is triggered; or - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions must determine and correct the cause of the bag leak detector alarm, return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.480.12	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.480.13	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.480.14	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.480.15	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.480.16	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time.

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	The established Pressure Drop Range Limit shall be reset as follows: - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.480.17	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.480.18	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
TREA 197	Step I Tertiary Crusher Line 4 Baghouse
5.481.1	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (2); 40 CFR 63.9610(a); 40 CFR 63.9631(a) (bag leak detection system required); 40 CFR 63.9631(a)(1)-(6) & (8); 40 CFR 63.9632(a); 40 CFR 63.9633; 40 CFR 63.9634(a) & (d); 40 CFR 63.9636(a)(1) & (2); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]

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5.481.2	The Permittee shall vent emissions from EQUI 389 to TREA 197 whenever EQUI 389 operates, and operate and maintain TREA 197 at all times that any emissions are vented to TREA 197. The Permittee shall document periods of non-operation of the control equipment TREA 197 whenever EQUI 389 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.481.3	If the Permittee replaces TREA 197, the replacement control must meet or exceed the control efficiency requirements of TREA 197 as well as comply with all other requirements of TREA 197. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.481.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.481.5	The Permittee shall operate and maintain a bag leak detector at all times that the fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan. [Minn. R. 7007.0800, subp. (14), Minn. R. 7007.0800, subp. 2(A) & (B)]
5.481.6	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.481.7	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.481.8	Pressure Drop ≥ 0.5 and ≤ 8.0 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. The Permittee shall record the pressure drop at least once every 24 hours when in operation. [40 CFR 63.9631(a)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.481.9	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.481.10	Pressure Drop Daily Inspections and Recordkeeping: At least once each operating day, the Permittee must read and record the pressure drop across the cartridge filter. The Permittee must record the time and date of each pressure drop reading and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5]
5.481.11	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the alarm for the bag leak detector is triggered; or - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair.

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	Corrective actions must determine and correct the cause of the bag leak detector alarm, return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.481.12	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.481.13	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.481.14	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.481.15	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.481.16	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time. The established Pressure Drop Range Limit shall be reset as follows: - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.481.17	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to

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	deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.481.18	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
TREA 198	Step I Tertiary Crusher Line 5 Baghouse
5.482.1	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (2); 40 CFR 63.9610(a); 40 CFR 63.9631(a) (bag leak detection system required); 40 CFR 63.9631(a)(1)-(6) & (8); 40 CFR 63.9632(a); 40 CFR 63.9633; 40 CFR 63.9634(a) & (d); 40 CFR 63.9636(a)(1) & (2); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.482.2	The Permittee shall vent emissions from EQUI 337 to TREA 198 whenever EQUI 337 operates, and operate and maintain TREA 198 at all times that any emissions are vented to TREA 198. The Permittee shall document periods of non-operation of the control equipment TREA 198 whenever EQUI 337 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.482.3	If the Permittee replaces TREA 198, the replacement control must meet or exceed the control efficiency requirements of TREA 198 as well as comply with all other requirements of TREA 198. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.482.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter $\geq$ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.482.5	The Permittee shall operate and maintain a bag leak detector at all times that the fabric filter and

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	emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan. [Minn. R. 7007.0800, subp. (14), Minn. R. 7007.0800, subp. 2(A) & (B)]
5.482.6	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron $\geq$ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.482.7	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron $\geq$ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.482.8	Pressure Drop $\geq$ 0.5 and $\leq$ 8.0 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. The Permittee shall record the pressure drop at least once every 24 hours when in operation. [40 CFR 63.9631(a)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.482.9	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.482.10	Pressure Drop Daily Inspections and Recordkeeping: At least once each operating day, the Permittee must read and record the pressure drop across the cartridge filter. The Permittee must record the time and date of each pressure drop reading and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5]
5.482.11	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the alarm for the bag leak detector is triggered; or - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions must determine and correct the cause of the bag leak detector alarm, return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.482.12	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.482.13	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.482.14	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4,

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	Minn. R. 7007.0800, subp. 5]
5.482.15	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.482.16	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time. The established Pressure Drop Range Limit shall be reset as follows: - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.482.17	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.482.18	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
TREA 199	Step I Tertiary Crusher Line 6 Baghouse
5.483.1	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (2); 40 CFR 63.9610(a); 40 CFR 63.9631(a) (bag leak detection system required); 40 CFR 63.9631(a)(1)-(6) & (8); 40 CFR 63.9632(a);

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	40 CFR 63.9633; 40 CFR 63.9634(a) & (d); 40 CFR 63.9636(a)(1) & (2); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.483.2	The Permittee shall vent emissions from EQUI 338 to TREA 199 whenever EQUI 338 operates, and operate and maintain TREA 199 at all times that any emissions are vented to TREA 199. The Permittee shall document periods of non-operation of the control equipment TREA 199 whenever EQUI 339 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.483.3	If the Permittee replaces TREA 199, the replacement control must meet or exceed the control efficiency requirements of TREA 199 as well as comply with all other requirements of TREA 199. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.483.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.483.5	The Permittee shall operate and maintain a bag leak detector at all times that the fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan. [Minn. R. 7007.0800, subp. (14), Minn. R. 7007.0800, subp. 2(A) & (B)]
5.483.6	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B)]
5.483.7	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.483.8	Pressure Drop ≥ 0.5 and ≤ 8.0 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. The Permittee shall record the pressure drop at least once every 24 hours when in operation. [40 CFR 63.9631(a)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R.

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	7011.8030, Minn. R. 7017.2025]
5.483.9	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.483.10	Pressure Drop Daily Inspections and Recordkeeping: At least once each operating day, the Permittee must read and record the pressure drop across the cartridge filter. The Permittee must record the time and date of each pressure drop reading and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5]
5.483.11	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the alarm for the bag leak detector is triggered; or - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions must determine and correct the cause of the bag leak detector alarm, return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.483.12	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.483.13	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.483.14	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.483.15	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.483.16	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time.

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	The established Pressure Drop Range Limit shall be reset as follows: - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.483.17	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.483.18	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
TREA 200	Step I Tertiary Crusher Line 7 Baghouse
5.484.1	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (2); 40 CFR 63.9610(a); 40 CFR 63.9631(a) (bag leak detection system required); 40 CFR 63.9631(a)(1)-(6) & (8); 40 CFR 63.9632(a); 40 CFR 63.9633; 40 CFR 63.9634(a) & (d); 40 CFR 63.9636(a)(1) & (2); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.484.2	The Permittee shall vent emissions from EQUI 54 and EQUI 55 to TREA 200 whenever EQUI 54 or EQUI

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	55 operates, and operate and maintain TREA 200 at all times that any emissions are vented to TREA 200. The Permittee shall document periods of non-operation of the control equipment TREA 200 whenever EQUI 54 or EQUI 55 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.484.3	If the Permittee replaces TREA 200, the replacement control must meet or exceed the control efficiency requirements of TREA 200 as well as comply with all other requirements of TREA 200. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.484.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.484.5	The Permittee shall operate and maintain a bag leak detector at all times that the fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan. [Minn. R. 7007.0800, subp. (14), Minn. R. 7007.0800, subp. 2(A) & (B)]
5.484.6	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.484.7	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.484.8	Pressure Drop ≥ 0.5 and ≤ 8.0 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. The Permittee shall record the pressure drop at least once every 24 hours when in operation. [40 CFR 63.9631(a)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.484.9	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.484.10	Pressure Drop Daily Inspections and Recordkeeping: At least once each operating day, the Permittee must read and record the pressure drop across the cartridge filter. The Permittee must record the time and date of each pressure drop reading and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5]
5.484.11	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the alarm for the bag leak detector is triggered; or - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair.

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	Corrective actions must determine and correct the cause of the bag leak detector alarm, return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.484.12	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.484.13	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.484.14	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.484.15	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.484.16	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time. The established Pressure Drop Range Limit shall be reset as follows: - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.484.17	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to

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	deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.484.18	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
TREA 201	Step I Tertiary Crusher Line 8 Baghouse
5.485.1	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (2); 40 CFR 63.9610(a); 40 CFR 63.9631(a) (bag leak detection system required); 40 CFR 63.9631(a)(1)-(6) & (8); 40 CFR 63.9632(a); 40 CFR 63.9633; 40 CFR 63.9634(a) & (d); 40 CFR 63.9636(a)(1) & (2); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.485.2	The Permittee shall vent emissions from EQUI 54 and EQUI 56 to TREA 201 whenever EQUI 54 or EQUI 56 operates, and operate and maintain TREA 201 at all times that any emissions are vented to TREA 201. The Permittee shall document periods of non-operation of the control equipment TREA 201 whenever EQUI 54 or EQUI 56 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.485.3	If the Permittee replaces TREA 201, the replacement control must meet or exceed the control efficiency requirements of TREA 201 as well as comply with all other requirements of TREA 201. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.485.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter $\geq$ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]

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5.485.5	The Permittee shall operate and maintain a bag leak detector at all times that the fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan. [Minn. R. 7007.0800, subp. (14), Minn. R. 7007.0800, subp. 2(A) & (B)]
5.485.6	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron $\geq$ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.485.7	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron $\geq$ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.485.8	Pressure Drop $\geq$ 0.5 and $\leq$ 8.0 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. The Permittee shall record the pressure drop at least once every 24 hours when in operation. [40 CFR 63.9631(a)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.485.9	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.485.10	Pressure Drop Daily Inspections and Recordkeeping: At least once each operating day, the Permittee must read and record the pressure drop across the cartridge filter. The Permittee must record the time and date of each pressure drop reading and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5]
5.485.11	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the alarm for the bag leak detector is triggered; or - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions must determine and correct the cause of the bag leak detector alarm, return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.485.12	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.485.13	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.485.14	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions

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	taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.485.15	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.485.16	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time. The established Pressure Drop Range Limit shall be reset as follows: - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.485.17	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.485.18	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
TREA 202	Step I Tertiary Crusher Line 9 Baghouse
5.486.1	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (2); 40 CFR 63.9610(a); 40 CFR 63.9631(a) (bag leak detection system required); 40 CFR 63.9631(a)(1)-(6) & (8);

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	40 CFR 63.9632(a); 40 CFR 63.9633; 40 CFR 63.9634(a) & (d); 40 CFR 63.9636(a)(1) & (2); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.486.2	The Permittee shall vent emissions from EQUI 57 and EQUI 66 to TREA 202 whenever EQUI 57 or EQUI 66 operates, and operate and maintain TREA 202 at all times that any emissions are vented to TREA 202. The Permittee shall document periods of non-operation of the control equipment TREA 202 whenever EQUI 57 or EQUI 66 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.486.3	If the Permittee replaces TREA 202, the replacement control must meet or exceed the control efficiency requirements of TREA 202 as well as comply with all other requirements of TREA 202. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.486.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.486.5	The Permittee shall operate and maintain a bag leak detector at all times that the fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan. [Minn. R. 7007.0800, subp. (14), Minn. R. 7007.0800, subp. 2(A) & (B)]
5.486.6	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.486.7	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.486.8	Pressure Drop ≥ 0.5 and ≤ 8.0 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. The

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	Permittee shall record the pressure drop at least once every 24 hours when in operation. [40 CFR 63.9631(a)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.486.9	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.486.10	Pressure Drop Daily Inspections and Recordkeeping: At least once each operating day, the Permittee must read and record the pressure drop across the cartridge filter. The Permittee must record the time and date of each pressure drop reading and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5]
5.486.11	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the alarm for the bag leak detector is triggered; or - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions must determine and correct the cause of the bag leak detector alarm, return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.486.12	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.486.13	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.486.14	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.486.15	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.486.16	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three

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	compliant test runs. Downtime of 15 minutes or more is not to be included as operating time. The established Pressure Drop Range Limit shall be reset as follows: - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.486.17	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.486.18	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
TREA 203	Step I Tertiary Crusher Line 10 Baghouse
5.487.1	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (2); 40 CFR 63.9610(a); 40 CFR 63.9631(a) (bag leak detection system required); 40 CFR 63.9631(a)(1)-(6) & (8); 40 CFR 63.9632(a); 40 CFR 63.9633; 40 CFR 63.9634(a) & (d); 40 CFR 63.9636(a)(1) & (2); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R.

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	7007.1150-7007.1500, Minn. R. 7011.8030]
5.487.2	The Permittee shall vent emissions from EQUI 58 and EQUI 66 to TREA 203 whenever EQUI 58 or EQUI 66 operates, and operate and maintain TREA 203 at all times that any emissions are vented to TREA 203. The Permittee shall document periods of non-operation of the control equipment TREA 203 whenever EQUI 58 or EQUI 66 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.487.3	If the Permittee replaces TREA 203, the replacement control must meet or exceed the control efficiency requirements of TREA 203 as well as comply with all other requirements of TREA 203. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.487.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.487.5	The Permittee shall operate and maintain a bag leak detector at all times that the fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan. [Minn. R. 7007.0800, subp. (14), Minn. R. 7007.0800, subp. 2(A) & (B)]
5.487.6	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.487.7	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.487.8	Pressure Drop ≥ 0.5 and ≤ 8.0 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. The Permittee shall record the pressure drop at least once every 24 hours when in operation. [40 CFR 63.9631(a)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.487.9	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.487.10	Pressure Drop Daily Inspections and Recordkeeping: At least once each operating day, the Permittee must read and record the pressure drop across the cartridge filter. The Permittee must record the time and date of each pressure drop reading and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5]
5.487.11	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the alarm for the bag leak detector is triggered; or

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	- the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions must determine and correct the cause of the bag leak detector alarm, return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.487.12	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.487.13	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.487.14	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.487.15	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.487.16	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time. The established Pressure Drop Range Limit shall be reset as follows: - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800,

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	subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.487.17	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.487.18	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
TREA 204	Step I Tertiary Crusher Line 11 Baghouse
5.488.1	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (2); 40 CFR 63.9610(a); 40 CFR 63.9631(a) (bag leak detection system required); 40 CFR 63.9631(a)(1)-(6) & (8); 40 CFR 63.9632(a); 40 CFR 63.9633; 40 CFR 63.9634(a) & (d); 40 CFR 63.9636(a)(1) & (2); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.488.2	The Permittee shall vent emissions from EQUI 59 and EQUI 67 to TREA 204 whenever EQUI 59 or EQUI 67 operates, and operate and maintain TREA 204 at all times that any emissions are vented to TREA 204. The Permittee shall document periods of non-operation of the control equipment TREA 204 whenever EQUI 59 or EQUI 67 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.488.3	If the Permittee replaces TREA 204, the replacement control must meet or exceed the control efficiency requirements of TREA 204 as well as comply with all other requirements of TREA 204. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.488.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency

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	for Particulate Matter ≥ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.488.5	The Permittee shall operate and maintain a bag leak detector at all times that the fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan. [Minn. R. 7007.0800, subp. (14), Minn. R. 7007.0800, subp. 2(A) & (B)]
5.488.6	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.488.7	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.488.8	Pressure Drop ≥ 0.5 and ≤ 8.0 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. The Permittee shall record the pressure drop at least once every 24 hours when in operation. [40 CFR 63.9631(a)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.488.9	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.488.10	Pressure Drop Daily Inspections and Recordkeeping: At least once each operating day, the Permittee must read and record the pressure drop across the cartridge filter. The Permittee must record the time and date of each pressure drop reading and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5]
5.488.11	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the alarm for the bag leak detector is triggered; or - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions must determine and correct the cause of the bag leak detector alarm, return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.488.12	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.488.13	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.488.14	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the

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	manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.488.15	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.488.16	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time. The established Pressure Drop Range Limit shall be reset as follows: - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.488.17	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.488.18	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
TREA 205	Step I Tertiary Crusher Line 12 Baghouse
5.489.1	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (2); 40 CFR 63.9610(a);

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	40 CFR 63.9631(a) (bag leak detection system required); 40 CFR 63.9631(a)(1)-(6) & (8); 40 CFR 63.9632(a); 40 CFR 63.9633; 40 CFR 63.9634(a) & (d); 40 CFR 63.9636(a)(1) & (2); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.489.2	The Permittee shall vent emissions from EQUI 60 and EQUI 67 to TREA 205 whenever EQUI 60 or EQUI 67 operates, and operate and maintain TREA 205 at all times that any emissions are vented to TREA 205. The Permittee shall document periods of non-operation of the control equipment TREA 205 whenever EQUI 60 or EQUI 67 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.489.3	If the Permittee replaces TREA 205, the replacement control must meet or exceed the control efficiency requirements of TREA 205 as well as comply with all other requirements of TREA 205. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.489.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter $\geq$ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.489.5	The Permittee shall operate and maintain a bag leak detector at all times that the fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan. [Minn. R. 7007.0800, subp. (14), Minn. R. 7007.0800, subp. 2(A) & (B)]
5.489.6	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron $\geq$ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.489.7	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron $\geq$ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.489.8	Pressure Drop $\geq$ 0.5 and $\leq$ 8.0 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded pressure drop is outside the required range, the emissions during that time shall be

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	considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. The Permittee shall record the pressure drop at least once every 24 hours when in operation. [40 CFR 63.9631(a)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.489.9	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.489.10	Pressure Drop Daily Inspections and Recordkeeping: At least once each operating day, the Permittee must read and record the pressure drop across the cartridge filter. The Permittee must record the time and date of each pressure drop reading and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5]
5.489.11	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the alarm for the bag leak detector is triggered; or - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions must determine and correct the cause of the bag leak detector alarm, return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.489.12	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.489.13	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.489.14	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.489.15	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.489.16	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated.

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	During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time. The established Pressure Drop Range Limit shall be reset as follows: - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.489.17	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.489.18	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
TREA 206	Step I Tertiary Crusher Line 13 Baghouse
5.490.1	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (2); 40 CFR 63.9610(a); 40 CFR 63.9631(a) (bag leak detection system required); 40 CFR 63.9631(a)(1)-(6) & (8); 40 CFR 63.9632(a); 40 CFR 63.9633; 40 CFR 63.9634(a) & (d); 40 CFR 63.9636(a)(1) & (2); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application

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	for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.490.2	The Permittee shall vent emissions from EQUI 61 and EQUI 68 to TREA 206 whenever EQUI 61 or EQUI 68 operates, and operate and maintain TREA 206 at all times that any emissions are vented to TREA 206. The Permittee shall document periods of non-operation of the control equipment TREA 206 whenever EQUI 61 or EQUI 68 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.490.3	If the Permittee replaces TREA 206[, the replacement control must meet or exceed the control efficiency requirements of TREA 206 as well as comply with all other requirements of TREA 206. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.490.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.490.5	The Permittee shall operate and maintain a bag leak detector at all times that the fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan. [Minn. R. 7007.0800, subp. (14), Minn. R. 7007.0800, subp. 2(A) & (B)]
5.490.6	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.490.7	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.490.8	Pressure Drop ≥ 0.5 and ≤ 8.0 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. The Permittee shall record the pressure drop at least once every 24 hours when in operation. [40 CFR 63.9631(a)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.490.9	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.490.10	Pressure Drop Daily Inspections and Recordkeeping: At least once each operating day, the Permittee must read and record the pressure drop across the cartridge filter. The Permittee must record the time and date of each pressure drop reading and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5]
5.490.11	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the

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	following occur: - the alarm for the bag leak detector is triggered; or - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions must determine and correct the cause of the bag leak detector alarm, return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.490.12	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.490.13	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.490.14	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.490.15	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.490.16	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time. The established Pressure Drop Range Limit shall be reset as follows: - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range

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	Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.490.17	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.490.18	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
TREA 207	Step I Tertiary Crusher Line 14 Baghouse
5.491.1	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (2); 40 CFR 63.9610(a); 40 CFR 63.9631(a) (bag leak detection system required); 40 CFR 63.9631(a)(1)-(6) & (8); 40 CFR 63.9632(a); 40 CFR 63.9633; 40 CFR 63.9634(a) & (d); 40 CFR 63.9636(a)(1) & (2); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.491.2	The Permittee shall vent emissions from EQUI 62 and EQUI 68 to TREA 207 whenever EQUI 67 or EQUI 62 operates, and operate and maintain TREA 207 at all times that any emissions are vented to TREA 207. The Permittee shall document periods of non-operation of the control equipment TREA 207 whenever EQUI 67 or EQUI 62 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.491.3	If the Permittee replaces TREA 207, the replacement control must meet or exceed the control efficiency requirements of TREA 207 as well as comply with all other requirements of TREA 207. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp.

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	2(A) & (B)]
5.491.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.491.5	The Permittee shall operate and maintain a bag leak detector at all times that the fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan. [Minn. R. 7007.0800, subp. (14), Minn. R. 7007.0800, subp. 2(A) & (B)]
5.491.6	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.491.7	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.491.8	Pressure Drop ≥ 0.5 and ≤ 8.0 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. The Permittee shall record the pressure drop at least once every 24 hours when in operation. [40 CFR 63.9631(a)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.491.9	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.491.10	Pressure Drop Daily Inspections and Recordkeeping: At least once each operating day, the Permittee must read and record the pressure drop across the cartridge filter. The Permittee must record the time and date of each pressure drop reading and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5]
5.491.11	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the alarm for the bag leak detector is triggered; or - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions must determine and correct the cause of the bag leak detector alarm, return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.491.12	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.491.13	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800,

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	subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.491.14	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.491.15	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.491.16	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time. The established Pressure Drop Range Limit shall be reset as follows: - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.491.17	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.491.18	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
TREA 208	Step I Tertiary Crusher Line 15 Baghouse
5.492.1	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9600(a) & (b);

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	40 CFR 63.9600(b)(1) & (2); 40 CFR 63.9610(a); 40 CFR 63.9631(a) (bag leak detection system required); 40 CFR 63.9631(a)(1)-(6) & (8); 40 CFR 63.9632(a); 40 CFR 63.9633; 40 CFR 63.9634(a) & (d); 40 CFR 63.9636(a)(1) & (2); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.492.2	The Permittee shall vent emissions from EQUI 63 and EQUI 65 to TREA 208 whenever EQUI 63 or EQUI 65 operates, and operate and maintain TREA 208 at all times that any emissions are vented to TREA 208. The Permittee shall document periods of non-operation of the control equipment TREA 208 whenever EQUI 63 or EQUI 65 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.492.3	If the Permittee replaces TREA 208, the replacement control must meet or exceed the control efficiency requirements of TREA 208 as well as comply with all other requirements of TREA 208. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.492.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.492.5	The Permittee shall operate and maintain a bag leak detector at all times that the fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan. [Minn. R. 7007.0800, subp. (14), Minn. R. 7007.0800, subp. 2(A) & (B)]
5.492.6	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.492.7	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.492.8	Pressure Drop ≥ 0.5 and ≤ 8.0 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below.

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	If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. The Permittee shall record the pressure drop at least once every 24 hours when in operation. [40 CFR 63.9631(a)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.492.9	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.492.10	Pressure Drop Daily Inspections and Recordkeeping: At least once each operating day, the Permittee must read and record the pressure drop across the cartridge filter. The Permittee must record the time and date of each pressure drop reading and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5]
5.492.11	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the alarm for the bag leak detector is triggered; or - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions must determine and correct the cause of the bag leak detector alarm, return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.492.12	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.492.13	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.492.14	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.492.15	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.492.16	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was

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	demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time. The established Pressure Drop Range Limit shall be reset as follows: - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.492.17	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.492.18	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
TREA 209	Step I Tertiary Crusher Line 16 Baghouse
5.493.1	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (2); 40 CFR 63.9610(a); 40 CFR 63.9631(a) (bag leak detection system required); 40 CFR 63.9631(a)(1)-(6) & (8); 40 CFR 63.9632(a); 40 CFR 63.9633; 40 CFR 63.9634(a) & (d); 40 CFR 63.9636(a)(1) & (2); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J.

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	If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.493.2	The Permittee shall vent emissions from EQUI 64 and EQUI 65 to TREA 209 whenever EQUI 64 or EQUI 65 operates, and operate and maintain TREA 209 at all times that any emissions are vented to TREA 209. The Permittee shall document periods of non-operation of the control equipment TREA 209 whenever EQUI 64 or EQUI 65 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.493.3	If the Permittee replaces TREA 209, the replacement control must meet or exceed the control efficiency requirements of TREA 209 as well as comply with all other requirements of TREA 209. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.493.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.493.5	The Permittee shall operate and maintain a bag leak detector at all times that the fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan. [Minn. R. 7007.0800, subp. (14), Minn. R. 7007.0800, subp. 2(A) & (B)]
5.493.6	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.493.7	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.493.8	Pressure Drop ≥ 0.5 and ≤ 8.0 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. The Permittee shall record the pressure drop at least once every 24 hours when in operation. [40 CFR 63.9631(a)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.493.9	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.493.10	Pressure Drop Daily Inspections and Recordkeeping: At least once each operating day, the Permittee must read and record the pressure drop across the cartridge filter. The Permittee must record the time and date of each pressure drop reading and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp.

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	2(A) & (B), Minn. R. 7007.0800, subps. 4-5]
5.493.11	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the alarm for the bag leak detector is triggered; or - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions must determine and correct the cause of the bag leak detector alarm, return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.493.12	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.493.13	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.493.14	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.493.15	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.493.16	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time. The established Pressure Drop Range Limit shall be reset as follows: - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound).

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	Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.493.17	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.493.18	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
TREA 210	Conveyor Transfer 004-005 Baghouse
5.494.1	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (2); 40 CFR 63.9610(a); 40 CFR 63.9631(a) (bag leak detection system required); 40 CFR 63.9631(a)(1)-(6) & (8); 40 CFR 63.9632(a); 40 CFR 63.9633; 40 CFR 63.9634(a) & (d); 40 CFR 63.9636(a)(1) & (2); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.494.2	The Permittee shall vent emissions from EQUI 321, EQUI 322, EQUI 323, EQUI 378, EQUI 379, and EQUI 380 to TREA 210 whenever EQUI 321, EQUI 322, EQUI 323, EQUI 378, EQUI 379, or EQUI 380 operates, and operate and maintain TREA 210 at all times that any emissions are vented to TREA 210. The Permittee shall document periods of non-operation of the control equipment TREA 210 whenever EQUI 321, EQUI 322, EQUI 323, EQUI 378, EQUI 379, or EQUI 380 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.494.3	If the Permittee replaces TREA 210, the replacement control must meet or exceed the control efficiency requirements of TREA 210 as well as comply with all other requirements of TREA 210. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable.

Requirement number	Requirement and citation
	If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.494.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.494.5	The Permittee shall operate and maintain a bag leak detector at all times that the fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan. [Minn. R. 7007.0800, subp. (14), Minn. R. 7007.0800, subp. 2(A) & (B)]
5.494.6	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.494.7	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.494.8	Pressure Drop ≥ 0.5 and ≤ 8.0 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. The Permittee shall record the pressure drop at least once every 24 hours when in operation. [40 CFR 63.9631(a)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.494.9	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.494.10	Pressure Drop Daily Inspections and Recordkeeping: At least once each operating day, the Permittee must read and record the pressure drop across the cartridge filter. The Permittee must record the time and date of each pressure drop reading and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5]
5.494.11	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the alarm for the bag leak detector is triggered; or - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions must determine and correct the cause of the bag leak detector alarm, return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.494.12	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation.

Requirement number	Requirement and citation
	[Minn. R. 7007.0800, subp. 4]
5.494.13	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.494.14	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.494.15	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.494.16	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time. The established Pressure Drop Range Limit shall be reset as follows: - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.494.17	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.494.18	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
TREA 211	Agglomerators I & II Bentonite Unloading Baghouse

Requirement number	Requirement and citation
5.495.1	The Permittee shall vent emissions from EQUI 90, EQUI 91, EQUI 92, EQUI 166, and EQUI 167 to TREA 211 whenever EQUI 90, EQUI 91, EQUI 92, EQUI 166, or EQUI 167 operates, and operate and maintain TREA 211 at all times that any emissions are vented to TREA 136. The Permittee shall document periods of non-operation of the control equipment TREA 211 whenever EQUI 90, EQUI 91, EQUI 92, EQUI 166, or EQUI 167 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.495.2	The Permittee shall vent emissions from EQUI 359 to TREA 211 whenever EQUI 359 operates, and operate and maintain TREA 211 at all times that any emissions are vented to TREA 211. The Permittee shall document periods of non-operation of the control equipment TREA 211 whenever EQUI 359 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.495.3	If the Permittee replaces TREA 211, the replacement control must meet or exceed the control efficiency requirements of TREA 211 as well as comply with all other requirements of TREA 211. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.495.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.495.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.495.6	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.495.7	Pressure Drop ≥ 0.5 and ≤ 8.0 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. During inclement weather, the Permittee shall record the pressure drop at least once every 24 hours when in operation. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.495.8	Visible Emissions: The Permittee shall check the fabric filter stack STRU 125 for any visible emissions once each day of operation during daylight hours. If there are visible emissions, the emissions shall be considered uncontrolled until there are no longer visible emissions. The period of time for which there are visible emissions shall be reported as a deviation. During inclement weather, the Permittee shall read and record the pressure drop across the fabric filter, once each day of operation. [Minn. R. 7007.0800, subps. 4-5]
5.495.9	Recordkeeping of Visible Emissions and Pressure Drop. The Permittee shall record the time and date of each visible emission inspection and pressure drop reading, and whether or not any visible emissions were observed, and whether or not the observed pressure drop was within the range specified in this permit. [Minn. R. 7007.0800, subps. 4-5]
5.495.10	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur:

Requirement number	Requirement and citation
	- visible emissions are observed; - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop to within the permitted range, eliminate visible emissions, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.495.11	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.495.12	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.495.13	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.495.14	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.495.15	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
TREA 212	Step I & II Conveyor transfer 010-01 Baghouse
5.496.1	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (2); 40 CFR 63.9610(a); 40 CFR 63.9631(a) (bag leak detection system required); 40 CFR 63.9631(a)(1)-(6) & (8); 40 CFR 63.9632(a); 40 CFR 63.9633; 40 CFR 63.9634(a) & (d); 40 CFR 63.9636(a)(1) & (2); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J.

Requirement number	Requirement and citation
	If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.496.2	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter $\geq$ 96.6 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.496.3	The Permittee shall operate and maintain a bag leak detector at all times that the fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan. [Minn. R. 7007.0800, subp. (14), Minn. R. 7007.0800, subp. 2(A) & (B)]
5.496.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron $\geq$ 94.5 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.496.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron $\geq$ 90.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.496.6	The Permittee shall vent emissions from EQUI 77, EQUI 78, EQUI 319, and EQUI 320 to TREA 212 whenever EQUI 77, EQUI 78, EQUI 319, or EQUI 320 operates, and operate and maintain TREA 212 at all times that any emissions are vented to TREA 212. The Permittee shall document periods of non-operation of the control equipment TREA 212 whenever EQUI 77, EQUI 78, EQUI 319, or EQUI 320 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.496.7	If the Permittee replaces TREA 212, the replacement control must meet or exceed the control efficiency requirements of TREA 212 as well as comply with all other requirements of TREA 212. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.496.8	Pressure Drop $\geq$ 0.5 and $\leq$ 8.0 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. The Permittee shall record the pressure drop at least once every 24 hours when in operation. [40 CFR 63.9631(a)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.496.9	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.496.10	Pressure Drop Daily Inspections and Recordkeeping: At least once each operating day, the Permittee must read and record the pressure drop across the cartridge filter. The Permittee must record the time and date of each pressure drop reading and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit

Requirement number	Requirement and citation
	are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5]
5.496.11	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the alarm for the bag leak detector is triggered; or - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions must determine and correct the cause of the bag leak detector alarm, return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.496.12	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.496.13	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.496.14	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.496.15	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.496.16	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time. The established Pressure Drop Range Limit shall be reset as follows: - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound).

Requirement number	Requirement and citation
	Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.496.17	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.496.18	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
TREA 213	Step I conveyor 005-006 Baghouse
5.497.1	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (2); 40 CFR 63.9610(a); 40 CFR 63.9631(a) (bag leak detection system required); 40 CFR 63.9631(a)(1)-(6) & (8); 40 CFR 63.9632(a); 40 CFR 63.9633; 40 CFR 63.9634(a) & (d); 40 CFR 63.9636(a)(1) & (2); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.497.2	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter $\geq$ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.497.3	The Permittee shall operate and maintain a bag leak detector at all times that the fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan. [Minn. R. 7007.0800, subp. (14), Minn. R. 7007.0800, subp. 2(A) & (B)]
5.497.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron $\geq$ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]

Requirement number	Requirement and citation
5.497.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron $\geq$ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.497.6	The Permittee shall vent emissions from EQUI 330, EQUI 383, and EQUI 384 to TREA 213 whenever EQUI 330, EQUI 383, or EQUI 384 operates, and operate and maintain TREA 213 at all times that any emissions are vented to TREA 213. The Permittee shall document periods of non-operation of the control equipment TREA 213 whenever EQUI 330, EQUI 383, or EQUI 384 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.497.7	If the Permittee replaces TREA 213, the replacement control must meet or exceed the control efficiency requirements of TREA 213 as well as comply with all other requirements of TREA 213. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.497.8	Pressure Drop $\geq$ 0.5 and $\leq$ 8.0 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. The Permittee shall record the pressure drop at least once every 24 hours when in operation. [40 CFR 63.9631(a)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.497.9	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.497.10	Pressure Drop Daily Inspections and Recordkeeping: At least once each operating day, the Permittee must read and record the pressure drop across the cartridge filter. The Permittee must record the time and date of each pressure drop reading and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5]
5.497.11	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the alarm for the bag leak detector is triggered; or - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions must determine and correct the cause of the bag leak detector alarm, return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.497.12	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation.

Requirement number	Requirement and citation
	[Minn. R. 7007.0800, subp. 4]
5.497.13	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.497.14	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.497.15	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.497.16	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time. The established Pressure Drop Range Limit shall be reset as follows: - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.497.17	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.497.18	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
TREA 214	Limestone Conveyor Transfer Baghouse

Requirement number	Requirement and citation
5.498.1	The Permittee shall vent emissions from EQUI 704 to TREA 214 whenever EQUI 704 operates, and operate and maintain TREA 214 at all times that any emissions are vented to TREA 214. The Permittee shall document periods of non-operation of the control equipment TREA 214 whenever EQUI 704 is operating. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) & Minn. R. 7007.3000]
5.498.2	If the Permittee replaces TREA 214, the replacement control must meet or exceed the control efficiency requirements of TREA 214 as well as comply with all other requirements of TREA 214. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.498.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 99.4 percent control efficiency. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) & Minn. R. 7007.3000]
5.498.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 99.3 percent control efficiency. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) & Minn. R. 7007.3000]
5.498.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.498.6	Pressure Drop ≥ 0.5 and ≤ 8.0 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. The Permittee shall record the pressure drop at least once every 24 hours when in operation. [Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2)]
5.498.7	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.498.8	Pressure Drop: Recordkeeping. The Permittee shall record the time and date of each pressure drop reading and whether or not the recorded pressure drop was within the range specified in this permit. [Minn. R. 7007.0800, subps. 4-5]
5.498.9	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.498.10	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]

Requirement number	Requirement and citation
5.498.11	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.498.12	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.498.13	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
TREA 215	Step III conveyor 005-006 Baghouse
5.499.1	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (2); 40 CFR 63.9610(a); 40 CFR 63.9631(a) (bag leak detection system required); 40 CFR 63.9631(a)(1)-(6) & (8); 40 CFR 63.9632(a); 40 CFR 63.9633; 40 CFR 63.9634(a) & (d); 40 CFR 63.9636(a)(1) & (2); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.499.2	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter $\geq$ 96.6 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.499.3	The Permittee shall operate and maintain a bag leak detector at all times that the fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan. [Minn. R. 7007.0800, subp. (14), Minn. R. 7007.0800, subp. 2(A) & (B)]
5.499.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron $\geq$ 94.5 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R.

Requirement number	Requirement and citation
	7007.0800, subp. 2(A) & (B)]
5.499.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron $\geq$ 90.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.499.6	The Permittee shall vent emissions from EQUI 309, and EQUI 310 to TREA 215 whenever EQUI 309, or EQUI 310 operates, and operate and maintain TREA 215 at all times that any emissions are vented to TREA 215. The Permittee shall document periods of non-operation of the control equipment TREA 215 whenever EQUI 309, or EQUI 310 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.499.7	If the Permittee replaces TREA 215, the replacement control must meet or exceed the control efficiency requirements of TREA 215 as well as comply with all other requirements of TREA 215. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.499.8	Pressure Drop $\geq$ 0.5 and $\leq$ 8.0 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. The Permittee shall record the pressure drop at least once every 24 hours when in operation. [40 CFR 63.9631(a)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.499.9	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.499.10	Pressure Drop Daily Inspections and Recordkeeping: At least once each operating day, the Permittee must read and record the pressure drop across the cartridge filter. The Permittee must record the time and date of each pressure drop reading and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5]
5.499.11	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the alarm for the bag leak detector is triggered; or - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions must determine and correct the cause of the bag leak detector alarm, return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.499.12	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment

Requirement number	Requirement and citation
	must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.499.13	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.499.14	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.499.15	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.499.16	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time. The established Pressure Drop Range Limit shall be reset as follows: - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.499.17	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.499.18	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
TREA 216	Step III Storage Bin Lines 17, 18 Baghouse

Requirement number	Requirement and citation
5.500.1	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (2); 40 CFR 63.9610(a); 40 CFR 63.9631(a) (bag leak detection system required); 40 CFR 63.9631(a)(1)-(6) & (8); 40 CFR 63.9632(a); 40 CFR 63.9633; 40 CFR 63.9634(a) & (d); 40 CFR 63.9636(a)(1) & (2); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.500.2	The Permittee shall vent emissions from EQUI 140, EQUI 141, EQUI 142, EQUI 251, EQUI 252, EQUI 253, and EQUI 254 to TREA 216 whenever EQUI 140, EQUI 141, EQUI 142, EQUI 251, EQUI 252, EQUI 253, or EQUI 254 operates, and operate and maintain TREA 216 at all times that any emissions are vented to TREA 216. The Permittee shall document periods of non-operation of the control equipment TREA 216 whenever EQUI 140, EQUI 141, EQUI 142, EQUI 251, EQUI 252, EQUI 253, or EQUI 254 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.500.3	If the Permittee replaces TREA 216, the replacement control must meet or exceed the control efficiency requirements of TREA 216 as well as comply with all other requirements of TREA 216. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.500.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.500.5	The Permittee shall operate and maintain a bag leak detector at all times that the fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan. [Minn. R. 7007.0800, subp. (14), Minn. R. 7007.0800, subp. 2(A) & (B)]
5.500.6	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]

Requirement number	Requirement and citation
5.500.7	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron $\geq$ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.500.8	Pressure Drop $\geq$ 0.5 and $\leq$ 8.0 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. The Permittee shall record the pressure drop at least once every 24 hours when in operation. [40 CFR 63.9631(a)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.500.9	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.500.10	Pressure Drop Daily Inspections and Recordkeeping: At least once each operating day, the Permittee must read and record the pressure drop across the cartridge filter. The Permittee must record the time and date of each pressure drop reading and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5]
5.500.11	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the alarm for the bag leak detector is triggered; or - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions must determine and correct the cause of the bag leak detector alarm, return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.500.12	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.500.13	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.500.14	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.500.15	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R.

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	7007.0800, subps. 4-5]
5.500.16	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time. The established Pressure Drop Range Limit shall be reset as follows: - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.500.17	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.500.18	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
TREA 217	Storage Bin L15,16 Cartridge Filter
5.501.1	The Permittee is authorized to construct and operate TREA 217 per the specifications listed in Appendix L. The authorization to construct expires 5 years after issuance of Air Emissions Permit No. 13700005-101. The control shall meet all applicable permit requirements. [Minn. R. 7007.0800, subp. 2(A)]
5.501.2	After the startup and operation of TREA 217, the Permittee shall vent emissions from EQUI 137, EQUI 138, EQUI 139, EQUI 247, EQUI 248, EQUI 249, and EQUI 250, to TREA 217 whenever EQUI 137, EQUI 138, EQUI 139, EQUI 247, EQUI 248, EQUI 249, or EQUI 250 operates, and operate and maintain TREA 217 at all times that any emissions are vented to TREA 217. The Permittee shall document periods of non-operation of the control equipment TREA 217 whenever EQUI 137, EQUI 138, EQUI 139, EQUI 247, EQUI 248, EQUI 249, or EQUI 250 is operating. Note: TREA 217 will replace TREA 187. Prior to the startup and operation of TREA 217, the Permittee shall follow the requirements for TREA 187. After the startup and operation of TREA 217, TREA 187 shall be shut down, and the Permittee shall follow requirements for TREA 217. [Minn. R. 7007.0800,

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	subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.501.3	If the Permittee replaces TREA 217, the replacement control must meet or exceed the control efficiency requirements of TREA 217 as well as comply with all other requirements of TREA 217. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.501.4	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (2); 40 CFR 63.9610(a); 40 CFR 63.9631(a) (bag leak detection system required); 40 CFR 63.9631(a)(1)-(6) & (8); 40 CFR 63.9632(a); 40 CFR 63.9633; 40 CFR 63.9634(a) & (d); 40 CFR 63.9636(a)(1) & (2); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.501.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.501.6	The Permittee shall operate and maintain a bag leak detector at all times that the fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan. [Minn. R. 7007.0800, subp. (14), Minn. R. 7007.0800, subp. 2(A) & (B)]
5.501.7	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.501.8	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.501.9	Pressure Drop ≥ 0.5 and ≤ 8.0 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below.

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	If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. The Permittee shall record the pressure drop at least once every 24 hours when in operation. [40 CFR 63.9631(a)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.501.10	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.501.11	Pressure Drop Daily Inspections and Recordkeeping: At least once each operating day, the Permittee must read and record the pressure drop across the cartridge filter. The Permittee must record the time and date of each pressure drop reading and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5]
5.501.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the alarm for the bag leak detector is triggered; or - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions must determine and correct the cause of the bag leak detector alarm, return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.501.13	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.501.14	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.501.15	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.501.16	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time. The established Pressure Drop Range Limit shall be reset as follows:

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	- if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.501.17	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.501.18	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
TREA 218	Step III Storage Bin Lines 13, 14 Baghouse
5.502.1	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (2); 40 CFR 63.9610(a); 40 CFR 63.9631(a) (bag leak detection system required); 40 CFR 63.9631(a)(1)-(6) & (8); 40 CFR 63.9632(a); 40 CFR 63.9633; 40 CFR 63.9634(a) & (d); 40 CFR 63.9636(a)(1) & (2); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.502.2	The Permittee shall vent emissions from EQUI 136, EQUI 174, EQUI 242, EQUI 243, EQUI 244, EQUI 245, and EQUI 246 to TREA 218 whenever EQUI 136, EQUI 174, EQUI 242, EQUI 243, EQUI 244, EQUI

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	245, or EQUI 246 operates, and operate and maintain TREA 218 at all times that any emissions are vented to TREA 218. The Permittee shall document periods of non-operation of the control equipment TREA 218 whenever EQUI 136, EQUI 174, EQUI 242, EQUI 243, EQUI 244, EQUI 245, or EQUI 246 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.502.3	If the Permittee replaces TREA 218, the replacement control must meet or exceed the control efficiency requirements of TREA 218 as well as comply with all other requirements of TREA 218. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.502.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.502.5	The Permittee shall operate and maintain a bag leak detector at all times that the fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan. [Minn. R. 7007.0800, subp. (14), Minn. R. 7007.0800, subp. 2(A) & (B)]
5.502.6	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.502.7	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.502.8	Pressure Drop ≥ 0.5 and ≤ 8.0 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. The Permittee shall record the pressure drop at least once every 24 hours when in operation. [40 CFR 63.9631(a)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.502.9	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.502.10	Pressure Drop Daily Inspections and Recordkeeping: At least once each operating day, the Permittee must read and record the pressure drop across the cartridge filter. The Permittee must record the time and date of each pressure drop reading and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5]
5.502.11	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the alarm for the bag leak detector is triggered; or - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair.

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	Corrective actions must determine and correct the cause of the bag leak detector alarm, return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.502.12	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.502.13	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.502.14	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.502.15	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.502.16	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time. The established Pressure Drop Range Limit shall be reset as follows: - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.502.17	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to

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	deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.502.18	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
TREA 219	Step III Conveyor Transfer 005 Feed Baghouse
5.503.1	The Permittee shall vent emissions from EQUI 52 to TREA 219 whenever EQUI 52 operates, and operate and maintain TREA 219 at all times that any emissions are vented to TREA 219. The Permittee shall document periods of non-operation of the control equipment TREA 219 whenever EQUI 52 is operating. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) & Minn. R. 7007.3000]
5.503.2	If the Permittee replaces TREA 219, the replacement control must meet or exceed the control efficiency requirements of TREA 219 as well as comply with all other requirements of TREA 219. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) & Minn. R. 7007.3000]
5.503.3	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (2); 40 CFR 63.9610(a); 40 CFR 63.9631(a) (bag leak detection system required); 40 CFR 63.9631(a)(1)-(6) & (8); 40 CFR 63.9632(a); 40 CFR 63.9633; 40 CFR 63.9634(a) & (d); 40 CFR 63.9636(a)(1) & (2); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.503.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter $\geq$ 99.4 percent control efficiency. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) & Minn. R. 7007.3000]

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5.503.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron $\geq$ 99.4 percent control efficiency. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) & Minn. R. 7007.3000]
5.503.6	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron $\geq$ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.503.7	Pressure Drop $\geq$ 0.5 and $\leq$ 8.0 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. The Permittee shall record the pressure drop at least once every 24 hours when in operation. [40 CFR 63.9631(a)(1), 40 CFR 64.3, Minn. R. 7011.8030, Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) & Minn. R. 7007.3000]
5.503.8	Pressure Drop Monitoring: The Permittee must read and record the pressure drop across the fabric filter, once every 24 hours. [40 CFR 64.3, Minn. R. 7017.0200, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
5.503.9	Recordkeeping of Pressure Drop: The Permittee shall record the time and date of each pressure drop reading, and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [40 CFR 64.9(b), Minn. R. 7017.0200, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
5.503.10	The Permittee must operate and maintain a bag leak detector at all times that the fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan. [40 CFR 64.3, Minn. R. 7017.0200, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) & Minn. R. 7007.3000]
5.503.11	Pressure Drop: Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [40 CFR 64.7(b), Minn. R. 7017.0200]
5.503.12	Bag Leak Detection System: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording relative particulate matter loadings in the exhaust of the baghouse as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [40 CFR 64.7(b), Minn. R. 7017.0200]
5.503.13	The Permittee shall calibrate the pressure gauge at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [40 CFR 64.3, Minn. R. 7017.0200]
5.503.14	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the alarm for the bag leak detector is triggered; - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions shall determine and correct the cause of the bag leak detector alarm, return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date

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	of any corrective action taken for each filter. [40 CFR 64.7(d), Minn. R. 7017.0200]
5.503.15	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.503.16	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.503.17	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.503.18	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time. The established Pressure Drop Range Limit shall be reset as follows: - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) & Minn. R. 7007.3000]
5.503.19	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.503.20	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
5.503.21	Documentation of Need for Improved Monitoring: If the Permittee fails to achieve compliance with an emission limitation or standard for which the monitoring did not provide an indication of an excursion

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	or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing pressure drop range, or modify the existing bag leak detection system, the Permittee shall promptly notify the MPCA and, if necessary, submit a permit amendment application to address the necessary monitoring change. [40 CFR 64.7(e), Minn. R. 7017.0200]
5.503.22	As required by 40 CFR 64.9(a)(2), for the Semi-Annual Deviations Report required by this permit and/or the Notification of Deviations Endangering Human Health and the Environment required by this permit, as applicable, the Permittee shall include the following related to the monitoring identified as required by 40 CFR pt. 64: 1) Summary information on the number, duration, and cause of excursions or exceedances, as applicable, and the corrective action taken; and 2) Summary information on the number, duration, and cause for monitor downtime incidents. [40 CFR 64.9(a)(2), Minn. R. 7017.0200]
5.503.23	The Permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, and other supporting information required to be maintained. The Permittee may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements. [40 CFR 64.9(b), Minn. R. 7017.0200]
TREA 220	Step III Conveyor Transfer 005 Discharge Baghouse
5.504.1	The Permittee shall vent emissions from EQUI 53 to TREA 220 whenever EQUI 53 operates, and operate and maintain TREA 220 at all times that any emissions are vented to TREA 220. The Permittee shall document periods of non-operation of the control equipment TREA 220 whenever EQUI 53 is operating. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) & Minn. R. 7007.3000]
5.504.2	If the Permittee replaces TREA 220, the replacement control must meet or exceed the control efficiency requirements of TREA 220 as well as comply with all other requirements of TREA 220. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.504.3	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (2); 40 CFR 63.9610(a); 40 CFR 63.9631(a) (bag leak detection system required); 40 CFR 63.9631(a)(1)-(6) & (8); 40 CFR 63.9632(a); 40 CFR 63.9633; 40 CFR 63.9634(a) & (d); 40 CFR 63.9636(a)(1) & (2); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652.

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	A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.504.4	The Permittee shall operate and maintain a bag leak detector at all times that the fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) & Minn. R. 7007.3000]
5.504.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 99.4 percent control efficiency. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) & Minn. R. 7007.3000]
5.504.6	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 99.4 percent control efficiency. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) & Minn. R. 7007.3000]
5.504.7	Pressure Drop ≥ 0.5 and ≤ 8.0 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. The Permittee shall record the pressure drop at least once every 24 hours when in operation. [40 CFR 63.9631(a)(1), 40 CFR 64.3, Minn. R. 7011.8030, Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) & Minn. R. 7007.3000]
5.504.8	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.504.9	Recordkeeping of Pressure Drop: The Permittee shall record the time and date of each pressure drop reading, and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [40 CFR 64.9(b), Minn. R. 7017.0200, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
5.504.10	Pressure Drop Monitoring: The Permittee must read and record the pressure drop across the fabric filter, once every 24 hours. [40 CFR 64.3, Minn. R. 7017.0200, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
5.504.11	The Permittee must operate and maintain a bag leak detector at all times that the fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan. [40 CFR 64.3, Minn. R. 7017.0200, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) & Minn. R. 7007.3000]
5.504.12	Recordkeeping of Bag Leak Detection System. The Permittee shall maintain a continuous hard copy readout or computer disk file of the bag leak detection system output signal and whether or not the bag leak detection alarm was triggered. Periods of time for which the bag leak detection system alarm is triggered are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [40 CFR 64.9(b), Minn. R. 7017.0200]
5.504.13	Pressure Drop: Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The

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	monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [40 CFR 64.7(b), Minn. R. 7017.0200]
5.504.14	The Permittee shall calibrate the pressure gauge at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [40 CFR 64.3, Minn. R. 7017.0200]
5.504.15	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the alarm for the bag leak detector is triggered; - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions shall determine and correct the cause of the bag leak detector alarm, return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [40 CFR 64.7(d), Minn. R. 7017.0200]
5.504.16	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.504.17	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.504.18	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.504.19	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time. The established Pressure Drop Range Limit shall be reset as follows: - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound).

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	Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) & Minn. R. 7007.3000]
5.504.20	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.504.21	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
5.504.22	Documentation of Need for Improved Monitoring: If the Permittee fails to achieve compliance with an emission limitation or standard for which the monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing pressure drop range, or modify the existing bag leak detection system, the Permittee shall promptly notify the MPCA and, if necessary, submit a permit amendment application to address the necessary monitoring change. [40 CFR 64.7(e), Minn. R. 7017.0200]
5.504.23	As required by 40 CFR 64.9(a)(2), for the Semi-Annual Deviations Report required by this permit and/or the Notification of Deviations Endangering Human Health and the Environment required by this permit, as applicable, the Permittee shall include the following related to the monitoring identified as required by 40 CFR pt. 64: 1) Summary information on the number, duration, and cause of excursions or exceedances, as applicable, and the corrective action taken; and 2) Summary information on the number, duration, and cause for monitor downtime incidents. [40 CFR 64.9(a)(2), Minn. R. 7017.0200]
5.504.24	The Permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, and other supporting information required to be maintained. The Permittee may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements. [40 CFR 64.9(b), Minn. R. 7017.0200]
TREA 221	Step I Conveyor Transfer 008 to 009 Baghouse
5.505.1	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (2); 40 CFR 63.9610(a); 40 CFR 63.9631(a) (bag leak detection system required); 40 CFR 63.9631(a)(1)-(6) & (8); 40 CFR 63.9632(a); 40 CFR 63.9633; 40 CFR 63.9634(a) & (d); 40 CFR 63.9636(a)(1) & (2); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and

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	40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.505.2	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter $\geq$ 96.6 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.505.3	The Permittee shall operate and maintain a bag leak detector at all times that the fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan. [Minn. R. 7007.0800, subp. (14), Minn. R. 7007.0800, subp. 2(A) & (B)]
5.505.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron $\geq$ 94.5 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.505.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron $\geq$ 90.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.505.6	The Permittee shall vent emissions from EQUI 326, and EQUI 381 to TREA 221 whenever EQUI 283, EQUI 326, or EQUI 381 operates, and operate and maintain TREA 221 at all times that any emissions are vented to TREA 221. The Permittee shall document periods of non-operation of the control equipment TREA 221 whenever EQUI 326, or EQUI 381 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.505.7	If the Permittee replaces TREA 221, the replacement control must meet or exceed the control efficiency requirements of TREA 221 as well as comply with all other requirements of TREA 221. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.505.8	Pressure Drop $\geq$ 0.5 and $\leq$ 8.0 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. The Permittee shall record the pressure drop at least once every 24 hours when in operation. [40 CFR 63.9631(a)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.505.9	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.505.10	Pressure Drop Daily Inspections and Recordkeeping: At least once each operating day, the Permittee

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	must read and record the pressure drop across the cartridge filter. The Permittee must record the time and date of each pressure drop reading and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5]
5.505.11	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the alarm for the bag leak detector is triggered; or - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions must determine and correct the cause of the bag leak detector alarm, return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.505.12	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.505.13	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.505.14	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.505.15	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.505.16	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time. The established Pressure Drop Range Limit shall be reset as follows: - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range.

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	The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.505.17	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.505.18	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
TREA 222	Step I Conveyor Transfer 003 to 004 Baghouse
5.506.1	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (2); 40 CFR 63.9610(a); 40 CFR 63.9631(a) (bag leak detection system required); 40 CFR 63.9631(a)(1)-(6) & (8); 40 CFR 63.9632(a); 40 CFR 63.9633; 40 CFR 63.9634(a) & (d); 40 CFR 63.9636(a)(1) & (2); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.506.2	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter $\geq$ 96.6 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.506.3	The Permittee shall operate and maintain a bag leak detector at all times that the fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan. [Minn. R. 7007.0800, subp. (14), Minn. R. 7007.0800, subp. 2(A) & (B)]

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5.506.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron $\geq$ 94.5 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.506.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron $\geq$ 90.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.506.6	The Permittee shall vent emissions from EQUI 331, EQUI 332, EQUI 333 and EQUI 385 to TREA 222 whenever EQUI 331, EQUI 332, EQUI 333 and EQUI 385 operates, and operate and maintain TREA 222 at all times that any emissions are vented to TREA 222. The Permittee shall document periods of non-operation of the control equipment TREA 222 whenever EQUI 331, EQUI 332, EQUI 333 and EQUI 385 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.506.7	If the Permittee replaces TREA 222, the replacement control must meet or exceed the control efficiency requirements of TREA 222 as well as comply with all other requirements of TREA 222. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.506.8	Pressure Drop $\geq$ 0.5 and $\leq$ 8.0 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. The Permittee shall record the pressure drop at least once every 24 hours when in operation. [40 CFR 63.9631(a)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.506.9	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.506.10	Pressure Drop Daily Inspections and Recordkeeping: At least once each operating day, the Permittee must read and record the pressure drop across the cartridge filter. The Permittee must record the time and date of each pressure drop reading and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5]
5.506.11	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the alarm for the bag leak detector is triggered; or - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions must determine and correct the cause of the bag leak detector alarm, return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]

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5.506.12	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.506.13	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.506.14	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.506.15	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.506.16	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time. The established Pressure Drop Range Limit shall be reset as follows: - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.506.17	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.506.18	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a

Requirement number	Requirement and citation
	permit amendment incorporating the change. [Minn. R. 7017.2025]
TREA 223	Step I Secondary Crusher Line 1 Baghouse
5.507.1	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (2); 40 CFR 63.9610(a); 40 CFR 63.9631(a) (bag leak detection system required); 40 CFR 63.9631(a)(1)-(6) & (8); 40 CFR 63.9632(a); 40 CFR 63.9633; 40 CFR 63.9634(a) & (d); 40 CFR 63.9636(a)(1) & (2); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.507.2	The Permittee shall vent emissions from EQUI 327 to TREA 223 whenever EQUI 327 operates, and operate and maintain TREA 223 at all times that any emissions are vented to TREA 223. The Permittee shall document periods of non-operation of the control equipment TREA 223 whenever EQUI 327 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.507.3	If the Permittee replaces TREA 223, the replacement control must meet or exceed the control efficiency requirements of TREA 223 as well as comply with all other requirements of TREA 223. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.507.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.507.5	The Permittee shall operate and maintain a bag leak detector at all times that the fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan. [Minn. R. 7007.0800, subp. (14), Minn. R. 7007.0800, subp. 2(A) and (B)]
5.507.6	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]

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5.507.7	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron $\geq$ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.507.8	Pressure Drop $\geq$ 0.5 and $\leq$ 8.0 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. The Permittee shall record the pressure drop at least once every 24 hours when in operation. [40 CFR 63.9631(a)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.507.9	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.507.10	Pressure Drop Daily Inspections and Recordkeeping: At least once each operating day, the Permittee must read and record the pressure drop across the cartridge filter. The Permittee must record the time and date of each pressure drop reading and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5]
5.507.11	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the alarm for the bag leak detector is triggered; or - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions must determine and correct the cause of the bag leak detector alarm, return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.507.12	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.507.13	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.507.14	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.507.15	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R.

Requirement number	Requirement and citation
	7007.0800, subps. 4-5]
5.507.16	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time. The established Pressure Drop Range Limit shall be reset as follows: - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.507.17	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.507.18	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
TREA 224	Line 3 Waste Gas Scrubber
5.508.1	The Permittee shall vent emissions from EQUI 146 to TREA 224 whenever EQUI 146 operates, and operate and maintain TREA 224 at all times that any emissions are vented to TREA 224. The Permittee shall document periods of non-operation of the control equipment TREA 224 whenever EQUI 146 is operating. [Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
5.508.2	If the Permittee replaces TREA 224, the replacement control must meet or exceed the control efficiency requirements of TREA 224 as well as comply with all other requirements of TREA 224. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
5.508.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter $\geq$ 97.1 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R.

Requirement number	Requirement and citation
	7007.0800, subp. 2(A) & (B)]
5.508.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron $\geq$ 87.7 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.508.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron $\geq$ 79.1 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.508.6	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9590(c); 40 CFR 63.9590(b)(1); 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (3); 40 CFR 63.9610(a); 40 CFR 63.9622(f); 40 CFR 63.9631(b); 40 CFR 63.9632(b)-(e); 40 CFR 63.9633; 40 CFR 63.9634(a), (e), & (j); 40 CFR 63.9636(a)(1) & (3); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.508.7	Pressure Drop $\geq$ 6.3 and $\leq$ 13 inches of water (Pressure Drop Range Limit) unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), 40 CFR 64.3, Minn. R. 7011.8030, Minn. R. 7017.2025, Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
5.508.8	Water flow rate $\geq$ 2500 gallons per minute (Water Flow Rate Limit) unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3, and 40 CFR 63.9622(f) as detailed below. [40 CFR 63.9590(b)(1), 40 CFR 64.3, Minn. R. 7011.8030, Minn. R. 7017.2025, Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
5.508.9	The Permittee shall operate and maintain the scrubber in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.508.10	The Permittee shall maintain and operate a pressure drop monitoring device that continuously indicates and records the pressure drop across the scrubber every 15 minutes. The permittee shall maintain and operate a water flow monitoring device that indicates and records the water flow rate of the scrubber every 15 minutes. The recording device shall also calculate the three-hour rolling average pressure drop and water flow rate. [40 CFR 64.3(b)(ii), Minn. R. 7017.0200]

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5.508.11	The Permittee shall maintain a continuous hard copy readout or computer disk file of the pressure drop readings and water flow rate readings. Readings outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [40 CFR 64.9(b), Minn. R. 7007.0800, subps. 4-5, Minn. R. 7017.0200]
5.508.12	If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. [40 CFR 64.3, Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.0200, Minn. R. 7017.2025]
5.508.13	If the recorded water flow rate is below the Water Flow Rate Limit, the emissions during that time shall be considered uncontrolled until the water flow rate is above the Water Flow Rate Limit. The period of time for which emissions are considered uncontrolled shall be reported as a deviation. [40 CFR 64.3, Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.0200, Minn. R. 7017.2025]
5.508.14	Pressure Drop: Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop and water flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation. [40 CFR 64.7(b), Minn. R. 7017.0200]
5.508.15	Annual Calibration: The Permittee shall calibrate the pressure drop monitor at least once every 12 months and shall maintain a written record of the calibration and any action resulting from the calibration. [40 CFR 64.3, Minn. R. 7017.0200]
5.508.16	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the wet scrubber. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [40 CFR 64.3, Minn. R. 7017.0200]
5.508.17	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the wet scrubber not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [40 CFR 64.3, Minn. R. 7017.0200]
5.508.18	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded pressure drop is outside the required operating range; or - the recorded water flow rate is below the required operating range; or - the scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop to within the permitted range and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for each control device. [40 CFR 64.7(d), Minn. R. 7017.0200]
5.508.19	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee shall calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time.

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	The established Pressure Drop Range Limit shall be reset as follows: - Using the CPMS, measure and record the pressure drop every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average pressure drop for each individual test run. - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is below the minimum value of the established range, the Pressure Drop Limit shall be reset as the lowest 1-hour average pressure drop corresponding to any of the three test runs. Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [40 CFR 63.9622(f), Minn. R. 7017.2025, Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
5.508.20	Protocol for Resetting the Water Flow Rate Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Water Flow Rate Limit is to be reset, the reset shall be based on the water flow rate values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Flow Rate Limit shall be reset as follows: - Using the CPMS, measure and record the scrubber water flow rate every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average scrubber water flow rate for each individual test run. - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is below the minimum value of the established range, the Pressure Drop Limit shall be reset as the lowest 1-hour average pressure drop corresponding to any of the three test runs. Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Water Flow Rate Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [40 CFR 63.9622(f), Minn. R. 7017.2025, Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
5.508.21	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.508.22	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
5.508.23	Documentation of Need for Improved Monitoring: If the Permittee fails to achieve compliance with an emission limitation or standard for which the monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing pressure drop range or minimum water flow rate, the

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	Permittee shall promptly notify the MPCA and, if necessary, submit a permit amendment application to address the necessary monitoring change. [40 CFR 64.7(e), Minn. R. 7017.0200]
5.508.24	As required by 40 CFR 64.9(a)(2), for the Semi-Annual Deviations Report required by this permit and/or the Notification of Deviations Endangering Human Health and the Environment required by this permit, as applicable, the Permittee shall include the following related to the monitoring identified as required by 40 CFR pt. 64: 1) Summary information on the number, duration, and cause of excursions or exceedances, as applicable, and the corrective action taken; and 2) Summary information on the number, duration, and cause for monitor downtime incidents. [40 CFR 64.9(a)(2), Minn. R. 7017.0200]
5.508.25	The Permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, and other supporting information required to be maintained. The Permittee may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements. [40 CFR 64.9(b), Minn. R. 7017.0200]
TREA 225	L6 Steam Collection Venturi Scrubber
5.509.1	The Permittee shall vent emissions from EQUI 119 and EQUI 120 to TREA 225 whenever EQUI 119 or EQUI 120 operates, and operate and maintain TREA 225 at all times that any emissions are vented to TREA 225. The Permittee shall document periods of non-operation of the control equipment TREA 225 whenever EQUI 119 or EQUI 120 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.509.2	If the Permittee replaces TREA 225, the replacement control must meet or exceed the control efficiency requirements of TREA 225 as well as comply with all other requirements of TREA 225. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.509.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 95.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.509.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 94.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.509.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 90.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.509.6	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9590(c); 40 CFR 63.9590(b)(1); 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (3); 40 CFR 63.9610(a); 40 CFR 63.9622(f); 40 CFR 63.9631(b);

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	40 CFR 63.9632(b)-(e); 40 CFR 63.9633; 40 CFR 63.9634(a), (e), & (j); 40 CFR 63.9636(a)(1) & (3); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.509.7	Pressure Drop $\geq$ 5.8 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.509.8	Water flow rate $\geq$ 100 gallons per minute daily average (Flow Rate Limit), unless a new limit is set pursuant to Minn. R. 7017.2025, subp. 3, and 40 CFR 63.9622(f), as detailed below. [40 CFR 63.9590(b)(1), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.509.9	The Permittee shall record the water flow rate at least once each operating day. If the recorded flow rate is below the required limit, the emissions during that time shall be considered uncontrolled until the flow rate is once again above the required limit. The period of time for which the flow rate is considered below the limit shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.509.10	The Permittee shall record the pressure drop at least once each operating day. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation, as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.509.11	Recordkeeping of Pressure Drop and Water Flow Rate: The Permittee shall record the time and date of each pressure drop reading and water flow rate reading, and whether or not the recorded values were within the ranges specified in this permit. [Minn. R. 7007.0800, subps. 4-5]
5.509.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded flow rate is below the required rate; - the recorded pressure drop is outside the required operating range; or - the scrubber or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop and/or water flow rate to within the permitted range(s), and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the Operation and Maintenance (O & M) Plan for the scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for each scrubber. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.509.13	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the wet

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	scrubber. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.509.14	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the wet scrubber not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.509.15	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop and water flow rate as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored scrubber is in operation. [Minn. R. 7007.0800, subp. 4]
5.509.16	The Permittee shall calibrate or replace the pressure drop and flow rate monitors at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.509.17	The Permittee shall operate and maintain the scrubber in accordance with the O & M Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.509.18	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Pressure Drop Range Limit shall be reset as follows: - Using the CPMS, measure and record the pressure drop every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average pressure drop for each individual test run. - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is below the minimum value of the established range, the Pressure Drop Limit shall be reset as the lowest 1-hour average pressure drop corresponding to any of the three test runs. Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B), Minn. R. 7017.2025]
5.509.19	Protocol for Resetting the Water Flow Rate Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Water Flow Rate Limit is to be reset, the reset shall be based on the water flow rate values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The established Flow Rate Limit shall be reset as follows: - Using the CPMS, measure and record the scrubber water flow rate every 15 minutes during each run of the particulate matter performance test. Downtime of 15 minutes or more is not to be included as operating time. - Calculate and record the average scrubber water flow rate for each individual test run.

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	- if the 3-hour average water flow rate recorded during the test is above the established limit, it shall not be reset and the established value remains the Flow Rate Limit; or - if the 3-hour average water flow rate recorded during the test is lower than the current limit, the Flow Rate Limit shall be reset as the lowest 1-hour average water flow rate corresponding to any of the three test runs. The new Flow Rate Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.509.20	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
5.509.21	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit and Flow Rate Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
TREA 226	Secondary Crusher L2 Cartridge Filter
5.510.1	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (2); 40 CFR 63.9610(a); 40 CFR 63.9631(a) (bag leak detection system required); 40 CFR 63.9631(a)(1)-(6) & (8); 40 CFR 63.9632(a); 40 CFR 63.9633; 40 CFR 63.9634(a) & (d); 40 CFR 63.9636(a)(1) & (2); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.510.2	The Permittee shall vent emissions from EQUI 328 to TREA 226 whenever EQUI 328 operates, and operate and maintain TREA 226 at all times that any emissions are vented to TREA 226. The Permittee shall document periods of non-operation of the control equipment TREA 226 whenever EQUI 328 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.510.3	If the Permittee replaces TREA 226, the replacement control must meet or exceed the control efficiency requirements of TREA 226 as well as comply with all other requirements of TREA 226. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit

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	amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.510.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.510.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.510.6	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.510.7	Pressure Drop ≥ 0.5 and ≤ 8.0 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. The Permittee shall record the pressure drop at least once every 24 hours when in operation. [40 CFR 63.9631(a)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.510.8	The Permittee shall operate and maintain a bag leak detector at all times that the fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan. [Minn. R. 7007.0800, subp. (14), Minn. R. 7007.0800, subp. 2(A) & (B)]
5.510.9	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.510.10	Pressure Drop Daily Inspections and Recordkeeping: At least once each operating day, the Permittee must read and record the pressure drop across the cartridge filter. The Permittee must record the time and date of each pressure drop reading and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5]
5.510.11	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the alarm for the bag leak detector is triggered; or - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions must determine and correct the cause of the bag leak detector alarm, return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.510.12	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment

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	for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.510.13	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.510.14	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.510.15	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.510.16	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time. The established Pressure Drop Range Limit shall be reset as follows: - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.510.17	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.510.18	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]

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TREA 227	Secondary Crusher L3 Cartridge Filter
5.511.1	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (2); 40 CFR 63.9610(a); 40 CFR 63.9631(a) (bag leak detection system required); 40 CFR 63.9631(a)(1)-(6) & (8); 40 CFR 63.9632(a); 40 CFR 63.9633; 40 CFR 63.9634(a) & (d); 40 CFR 63.9636(a)(1) & (2); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.511.2	The Permittee shall vent emissions from EQUI 382 to TREA 227 whenever EQUI 382 operates, and operate and maintain TREA 227 at all times that any emissions are vented to TREA 227. The Permittee shall document periods of non-operation of the control equipment TREA 227 whenever EQUI 382 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.511.3	If the Permittee replaces TREA 227, the replacement control must meet or exceed the control efficiency requirements of TREA 227 as well as comply with all other requirements of TREA 227. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.511.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.511.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.511.6	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.511.7	Pressure Drop ≥ 0.5 and ≤ 8.0 inches of water (Pressure Drop Range Limit), unless a new range is

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	set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. The Permittee shall record the pressure drop at least once every 24 hours when in operation. [40 CFR 63.9631(a)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.511.8	The Permittee shall operate and maintain a bag leak detector at all times that the fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan. [Minn. R. 7007.0800, subp. (14), Minn. R. 7007.0800, subp. 2(A) & (B)]
5.511.9	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.511.10	Pressure Drop Daily Inspections and Recordkeeping: At least once each operating day, the Permittee must read and record the pressure drop across the cartridge filter. The Permittee must record the time and date of each pressure drop reading and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5]
5.511.11	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the alarm for the bag leak detector is triggered; or - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions must determine and correct the cause of the bag leak detector alarm, return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.511.12	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.511.13	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.511.14	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.511.15	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R.

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	7007.0800, subps. 4-5]
5.511.16	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time. The established Pressure Drop Range Limit shall be reset as follows: - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.511.17	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.511.18	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
TREA 228	Secondary Crusher L4 Cartridge Filter
5.512.1	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (2); 40 CFR 63.9610(a); 40 CFR 63.9631(a) (bag leak detection system required); 40 CFR 63.9631(a)(1)-(6) & (8); 40 CFR 63.9632(a); 40 CFR 63.9633; 40 CFR 63.9634(a) & (d); 40 CFR 63.9636(a)(1) & (2); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c);

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	40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.512.2	The Permittee shall vent emissions from EQUI 329 to TREA 228 whenever EQUI 329 operates, and operate and maintain TREA 228 at all times that any emissions are vented to TREA 228. The Permittee shall document periods of non-operation of the control equipment TREA 228 whenever EQUI 329 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.512.3	If the Permittee replaces TREA 228, the replacement control must meet or exceed the control efficiency requirements of TREA 228 as well as comply with all other requirements of TREA 228. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.512.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter $\geq$ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.512.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron $\geq$ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.512.6	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron $\geq$ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.512.7	Pressure Drop $\geq$ 0.5 and $\leq$ 8.0 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. The Permittee shall record the pressure drop at least once every 24 hours when in operation. [40 CFR 63.9631(a)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.512.8	The Permittee shall operate and maintain a bag leak detector at all times that the fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan. [Minn. R. 7007.0800, subp. (14), Minn. R. 7007.0800, subp. 2(A) & (B)]
5.512.9	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.512.10	Pressure Drop Daily Inspections and Recordkeeping: At least once each operating day, the Permittee

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	must read and record the pressure drop across the cartridge filter. The Permittee must record the time and date of each pressure drop reading and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5]
5.512.11	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the alarm for the bag leak detector is triggered; or - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions must determine and correct the cause of the bag leak detector alarm, return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.512.12	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.512.13	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.512.14	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.512.15	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.512.16	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time. The established Pressure Drop Range Limit shall be reset as follows: - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range.

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	The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.512.17	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.512.18	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
TREA 229	Conveyor Transfer 009-020 Cartridge Filter
5.513.1	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (2); 40 CFR 63.9610(a); 40 CFR 63.9631(a) (bag leak detection system required); 40 CFR 63.9631(a)(1)-(6) & (8); 40 CFR 63.9632(a); 40 CFR 63.9633; 40 CFR 63.9634(a) & (d); 40 CFR 63.9636(a)(1) & (2); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.513.2	The Permittee shall vent emissions from EQUI 313, EQUI 314, EQUI 393, and EQUI 394 to TREA 229 whenever EQUI 313, EQUI 314, EQUI 393, or EQUI 394 operates, and operate and maintain TREA 229 at all times that any emissions are vented to TREA 229. The Permittee shall document periods of non-operation of the control equipment TREA 229 whenever EQUI 313, EQUI 314, EQUI 393, or EQUI 394 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.513.3	If the Permittee replaces TREA 229, the replacement control must meet or exceed the control efficiency requirements of TREA 229 as well as comply with all other requirements of TREA 229. Prior

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	to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.513.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.513.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.513.6	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.513.7	Pressure Drop ≥ 0.5 and ≤ 8.0 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. The Permittee shall record the pressure drop at least once every 24 hours when in operation. [40 CFR 63.9631(a)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.513.8	The Permittee shall operate and maintain a bag leak detector at all times that the fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan. [Minn. R. 7007.0800, subp. (14), Minn. R. 7007.0800, subp. 2(A) & (B)]
5.513.9	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.513.10	Pressure Drop Daily Inspections and Recordkeeping: At least once each operating day, the Permittee must read and record the pressure drop across the cartridge filter. The Permittee must record the time and date of each pressure drop reading and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5]
5.513.11	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the alarm for the bag leak detector is triggered; or - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions must determine and correct the cause of the bag leak detector alarm, return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]

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5.513.12	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.513.13	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.513.14	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.513.15	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.513.16	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time. The established Pressure Drop Range Limit shall be reset as follows: - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.513.17	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.513.18	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a

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	permit amendment incorporating the change. [Minn. R. 7017.2025]
TREA 230	Conveyor Transfer 008-009 Cartridge Filter
5.514.1	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (2); 40 CFR 63.9610(a); 40 CFR 63.9631(a) (bag leak detection system required); 40 CFR 63.9631(a)(1)-(6) & (8); 40 CFR 63.9632(a); 40 CFR 63.9633; 40 CFR 63.9634(a) & (d); 40 CFR 63.9636(a)(1) & (2); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.514.2	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.514.3	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.514.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.514.5	Pressure Drop ≥ 0.5 and ≤ 8.0 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. The Permittee shall record the pressure drop at least once every 24 hours when in operation. [40 CFR 63.9631(a)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.514.6	The Permittee shall vent emissions from EQUI 8, and EQUI 284 to TREA 230 whenever EQUI 8, or EQUI 284 operates, and operate and maintain TREA 230 at all times that any emissions are vented to TREA 230. The Permittee shall document periods of non-operation of the control equipment TREA 230 whenever EQUI 8, or EQUI 284 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]

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5.514.7	If the Permittee replaces TREA 230, the replacement control must meet or exceed the control efficiency requirements of TREA 230 as well as comply with all other requirements of TREA 230. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.514.8	The Permittee shall operate and maintain a bag leak detector at all times that the fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan. [Minn. R. 7007.0800, subp. (14), Minn. R. 7007.0800, subp. 2(A) & (B)]
5.514.9	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.514.10	Pressure Drop Daily Inspections and Recordkeeping: At least once each operating day, the Permittee must read and record the pressure drop across the cartridge filter. The Permittee must record the time and date of each pressure drop reading and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5]
5.514.11	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the alarm for the bag leak detector is triggered; or - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions must determine and correct the cause of the bag leak detector alarm, return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.514.12	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.514.13	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.514.14	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.514.15	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be

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	separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.514.16	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time. The established Pressure Drop Range Limit shall be reset as follows: - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.514.17	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.514.18	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
TREA 231	Step I Coarse Crusher Pan Feeder Cartridge Filter
5.515.1	The Permittee shall vent emissions from EQUI 206 and EQUI 207 to TREA 231 whenever EQUI 206 and 207 operates, and operate and maintain TREA 231 at all times that any emissions are vented to TREA 231. The Permittee shall document periods of non-operation of the control equipment TREA 231 whenever EQUI 206 or EQUI 207 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.515.2	If the Permittee replaces TREA 231, the replacement control must meet or exceed the control efficiency requirements of TREA 231 as well as comply with all other requirements of TREA 231. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]

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5.515.3	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (2); 40 CFR 63.9610(a); 40 CFR 63.9631(a) (bag leak detection system required); 40 CFR 63.9631(a)(1)-(6) & (8); 40 CFR 63.9632(a); 40 CFR 63.9633; 40 CFR 63.9634(a) & (d); 40 CFR 63.9636(a)(1) & (2); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.515.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.515.5	Pressure Drop ≥ 0.5 and ≤ 8.0 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. The Permittee shall record the pressure drop at least once every 24 hours when in operation. [40 CFR 63.9631(a)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.515.6	The Permittee shall operate and maintain a bag leak detector at all times that the fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan. [Minn. R. 7007.0800, subp. (14), Minn. R. 7007.0800, subp. 2(A) & (B)]
5.515.7	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.515.8	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.515.9	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]

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5.515.10	Pressure Drop Daily Inspections and Recordkeeping: At least once each operating day, the Permittee must read and record the pressure drop across the cartridge filter. The Permittee must record the time and date of each pressure drop reading and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5]
5.515.11	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the alarm for the bag leak detector is triggered; or - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions must determine and correct the cause of the bag leak detector alarm, return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.515.12	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.515.13	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.515.14	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.515.15	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.515.16	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time. The established Pressure Drop Range Limit shall be reset as follows: - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum

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	value shall be increased by the same amount to maintain the pressure drop range. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.515.17	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.515.18	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
TREA 232	Step II Coarse Crusher Pan Feeder Cartridge Filter
5.516.1	The Permittee shall vent emissions from EQUI 208 and EQUI 374 to TREA 232 whenever EQUI 208 or EQUI 374 operates, and operate and maintain TREA 232 at all times that any emissions are vented to TREA 232. The Permittee shall document periods of non-operation of the control equipment TREA 232 whenever EQUI 208 or EQUI 374 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.516.2	If the Permittee replaces TREA 232, the replacement control must meet or exceed the control efficiency requirements of TREA 232 as well as comply with all other requirements of TREA 232. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.516.3	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (2); 40 CFR 63.9610(a); 40 CFR 63.9631(a) (bag leak detection system required); 40 CFR 63.9631(a)(1)-(6) & (8); 40 CFR 63.9632(a); 40 CFR 63.9633; 40 CFR 63.9634(a) & (d); 40 CFR 63.9636(a)(1) & (2); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652.

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	A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.516.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.516.5	Pressure Drop ≥ 0.5 and ≤ 8.0 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. The Permittee shall record the pressure drop at least once every 24 hours when in operation. [40 CFR 63.9631(a)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.516.6	The Permittee shall operate and maintain a bag leak detector at all times that the fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan. [Minn. R. 7007.0800, subp. (14), Minn. R. 7007.0800, subp. 2(A) & (B)]
5.516.7	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.516.8	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.516.9	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.516.10	Pressure Drop Daily Inspections and Recordkeeping: At least once each operating day, the Permittee must read and record the pressure drop across the cartridge filter. The Permittee must record the time and date of each pressure drop reading and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5]
5.516.11	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the alarm for the bag leak detector is triggered; or - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions must determine and correct the cause of the bag leak detector alarm, return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800,

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	subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.516.12	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.516.13	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.516.14	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.516.15	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.516.16	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time. The established Pressure Drop Range Limit shall be reset as follows: - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.516.17	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.516.18	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of

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	preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
TREA 233	Conveyor Transfer 005-006 Cartridge Filter
5.517.1	The Permittee shall vent emissions from EQUI 318 and EQUI 377 to TREA 233 whenever EQUI 318 or EQUI 377 operates, and operate and maintain TREA 233 at all times that any emissions are vented to TREA 233. The Permittee shall document periods of non-operation of the control equipment TREA 233 whenever EQUI 318 or EQUI 377 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.517.2	If the Permittee replaces TREA 233, the replacement control must meet or exceed the control efficiency requirements of TREA 233 as well as comply with all other requirements of TREA 233. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.517.3	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (2); 40 CFR 63.9610(a); 40 CFR 63.9631(a) (bag leak detection system required); 40 CFR 63.9631(a)(1)-(6) & (8); 40 CFR 63.9632(a); 40 CFR 63.9633; 40 CFR 63.9634(a) & (d); 40 CFR 63.9636(a)(1) & (2); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.517.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter $\geq$ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.517.5	Pressure Drop $\geq$ 0.5 and $\leq$ 8.0 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of

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	time for which the pressure drop is considered out of range shall be reported as a deviation. The Permittee shall record the pressure drop at least once every 24 hours when in operation. [40 CFR 63.9631(a)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.517.6	The Permittee shall operate and maintain a bag leak detector at all times that the fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan. [Minn. R. 7007.0800, subp. (14), Minn. R. 7007.0800, subp. 2(A) & (B)]
5.517.7	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron $\geq$ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.517.8	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron $\geq$ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.517.9	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.517.10	Pressure Drop Daily Inspections and Recordkeeping: At least once each operating day, the Permittee must read and record the pressure drop across the cartridge filter. The Permittee must record the time and date of each pressure drop reading and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5]
5.517.11	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the alarm for the bag leak detector is triggered; or - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions must determine and correct the cause of the bag leak detector alarm, return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.517.12	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.517.13	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.517.14	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.517.15	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the

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	inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.517.16	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time. The established Pressure Drop Range Limit shall be reset as follows: - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.517.17	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.517.18	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
TREA 234	Conveyor Transfer 001 to 070 Cartridge Filter
5.518.1	The Permittee is authorized to construct and operate TREA 234 per the specifications listed in Appendix L. The authorization to construct expires 5 years after issuance of Air Emissions Permit No. 13700005-101. The control shall meet all applicable permit requirements. [Minn. R. 7007.0800, subp. 2(A)]
5.518.2	After the startup and operation of TREA 234, the Permittee shall vent emissions from EQUI 392 to TREA 234 whenever EQUI ID 392 operates, and operate and maintain TREA 234 at all times that any emissions are vented to TREA 234. The Permittee shall document periods of non-operation of the control equipment TREA 234 whenever EQUI 392 is operating. Note: TREA 234 will replace TREA 54. Prior to the startup and operation of TREA 234, the Permittee shall follow the requirements for TREA 54. After the startup and operation of TREA 234, TREA 54 shall be shut down, and the Permittee shall follow requirements for TREA 234. [Minn. R. 7007.0800, subp.

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	14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.518.3	If the Permittee replaces TREA 234, the replacement control must meet or exceed the control efficiency requirements of TREA 234 as well as comply with all other requirements of TREA 234. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.518.4	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (2); 40 CFR 63.9610(a); 40 CFR 63.9631(a) (bag leak detection system required); 40 CFR 63.9631(a)(1)-(6) & (8); 40 CFR 63.9632(a); 40 CFR 63.9633; 40 CFR 63.9634(a) & (d); 40 CFR 63.9636(a)(1) & (2); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.518.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.518.6	Pressure Drop ≥ 0.5 and ≤ 8.0 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. The Permittee shall record the pressure drop at least once every 24 hours when in operation. [40 CFR 63.9631(a)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.518.7	The Permittee shall operate and maintain a bag leak detector at all times that the fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan. [Minn. R. 7007.0800, subp. (14), Minn. R. 7007.0800,

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	subp. 2(A) & (B)]
5.518.8	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron $\geq$ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.518.9	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron $\geq$ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.518.10	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.518.11	Pressure Drop Daily Inspections and Recordkeeping: At least once each operating day, the Permittee must read and record the pressure drop across the cartridge filter. The Permittee must record the time and date of each pressure drop reading and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5]
5.518.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the alarm for the bag leak detector is triggered; or - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions must determine and correct the cause of the bag leak detector alarm, return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.518.13	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.518.14	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.518.15	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.518.16	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.518.17	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was

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	demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time. The established Pressure Drop Range Limit shall be reset as follows: - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.518.18	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.518.19	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
TREA 235	Conveyor Transfer 005-006 Cartridge Filter
5.519.1	The Permittee shall vent emissions from EQUI 51 to TREA 235 whenever EQUI 51 operates, and operate and maintain TREA 235 at all times that any emissions are vented to TREA 235. The Permittee shall document periods of non-operation of the control equipment TREA 235 whenever EQUI 51 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.519.2	If the Permittee replaces TREA 235, the replacement control must meet or exceed the control efficiency requirements of TREA 235 as well as comply with all other requirements of TREA 235. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.519.3	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (2); 40 CFR 63.9610(a); 40 CFR 63.9631(a) (bag leak detection system required);

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	40 CFR 63.9631(a)(1)-(6) & (8); 40 CFR 63.9632(a); 40 CFR 63.9633; 40 CFR 63.9634(a) & (d); 40 CFR 63.9636(a)(1) & (2); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.519.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.519.5	Pressure Drop ≥ 0.5 and ≤ 8.0 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. The Permittee shall record the pressure drop at least once every 24 hours when in operation. [40 CFR 63.9631(a)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.519.6	The Permittee shall operate and maintain a bag leak detector at all times that the fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan. [Minn. R. 7007.0800, subp. (14), Minn. R. 7007.0800, subp. 2(A) & (B)]
5.519.7	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.519.8	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.519.9	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.519.10	Pressure Drop Daily Inspections and Recordkeeping: At least once each operating day, the Permittee must read and record the pressure drop across the cartridge filter. The Permittee must record the time and date of each pressure drop reading and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5]

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5.519.11	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the alarm for the bag leak detector is triggered; or - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions must determine and correct the cause of the bag leak detector alarm, return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.519.12	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.519.13	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.519.14	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.519.15	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.519.16	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time. The established Pressure Drop Range Limit shall be reset as follows: - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data

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	acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.519.17	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.519.18	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
TREA 236	Surge Pile/Reclaim 011-01 Cartridge Filter
5.520.1	The Permittee is authorized to construct and operate TREA 236 per the specifications listed in Appendix L. The authorization to construct expires 5 years after issuance of Air Emissions Permit No. 13700005-101. The control shall meet all applicable permit requirements. [Minn. R. 7007.0800, subp. 2(A)]
5.520.2	After the startup and operation of TREA 236, the Permittee shall vent emissions from EQUI 325 to TREA 236 whenever EQUI 325 operates, and operate and maintain TREA 236 at all times that any emissions are vented to TREA 236. The Permittee shall document periods of non-operation of the control equipment TREA 236 whenever EQUI 325 is operating. Note: TREA 236 will replace TREA 127. Prior to the startup and operation of TREA 236, the Permittee shall follow the requirements for TREA 127. After the startup and operation of TREA 236, TREA 127 shall be shut down, and the Permittee shall follow requirements for TREA 236. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.520.3	If the Permittee replaces TREA 236, the replacement control must meet or exceed the control efficiency requirements of TREA 236 as well as comply with all other requirements of TREA 236. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.520.4	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (2); 40 CFR 63.9610(a); 40 CFR 63.9631(a) (bag leak detection system required); 40 CFR 63.9631(a)(1)-(6) & (8); 40 CFR 63.9632(a); 40 CFR 63.9633; 40 CFR 63.9634(a) & (d); 40 CFR 63.9636(a)(1) & (2); 40 CFR 63.9636(b); 40 CFR 63.9637;

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	40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.520.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.520.6	Pressure Drop ≥ 0.5 and ≤ 8.0 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. The Permittee shall record the pressure drop at least once every 24 hours when in operation. [40 CFR 63.9631(a)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.520.7	The Permittee shall operate and maintain a bag leak detector at all times that the fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan. [Minn. R. 7007.0800, subp. (14), Minn. R. 7007.0800, subp. 2(A) & (B)]
5.520.8	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.520.9	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.520.10	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.520.11	Pressure Drop Daily Inspections and Recordkeeping: At least once each operating day, the Permittee must read and record the pressure drop across the cartridge filter. The Permittee must record the time and date of each pressure drop reading and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5]
5.520.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the alarm for the bag leak detector is triggered; or - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions must determine and correct the cause of the bag leak detector alarm, return the pressure drop to within the permitted range, and/or include completion of necessary repairs

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	identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.520.13	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.520.14	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.520.15	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.520.16	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.520.17	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time. The established Pressure Drop Range Limit shall be reset as follows: - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.520.18	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]

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5.520.19	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
TREA 237	Conveyor Transfer 008-009 Cartridge Filter
5.521.1	The Permittee is authorized to construct and operate TREA 237 per the specifications listed in Appendix L. The authorization to construct expires 5 years after issuance of Air Emissions Permit No. 13700005-101. The control shall meet all applicable permit requirements. [Minn. R. 7007.0800, subp. 2(A)]
5.521.2	After the startup and operation of TREA 237, the Permittee shall vent emissions from EQUI 6, EQUI 7, EQUI 342 and EQUI 343 to TREA 237 whenever EQUI 6, EQUI 7, EQUI 342 or EQUI 343 operates, and operate and maintain TREA 237 at all times that any emissions are vented to TREA 237. The Permittee shall document periods of non-operation of the control equipment TREA 237 whenever EQUI 6, EQUI 7, EQUI 342 or EQUI 343 is operating. Note: TREA 237 will replace TREA 53. Prior to the startup and operation of TREA 237, the Permittee shall follow the requirements for TREA 53. After the startup and operation of TREA 237, TREA 53 shall be shut down, and the Permittee shall follow requirements for TREA 237. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.521.3	If the Permittee replaces TREA 237, the replacement control must meet or exceed the control efficiency requirements of TREA 237 as well as comply with all other requirements of TREA 237. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.521.4	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (2); 40 CFR 63.9610(a); 40 CFR 63.9631(a) (bag leak detection system required); 40 CFR 63.9631(a)(1)-(6) & (8); 40 CFR 63.9632(a); 40 CFR 63.9633; 40 CFR 63.9634(a) & (d); 40 CFR 63.9636(a)(1) & (2); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J.

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	If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.521.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.521.6	Pressure Drop ≥ 0.5 and ≤ 8.0 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. The Permittee shall record the pressure drop at least once every 24 hours when in operation. [40 CFR 63.9631(a)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.521.7	The Permittee shall operate and maintain a bag leak detector at all times that the fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan. [Minn. R. 7007.0800, subp. (14), Minn. R. 7007.0800, subp. 2(A) & (B)]
5.521.8	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.521.9	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.521.10	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.521.11	Pressure Drop Daily Inspections and Recordkeeping: At least once each operating day, the Permittee must read and record the pressure drop across the cartridge filter. The Permittee must record the time and date of each pressure drop reading and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5]
5.521.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the alarm for the bag leak detector is triggered; or - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions must determine and correct the cause of the bag leak detector alarm, return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.521.13	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment

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	must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.521.14	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.521.15	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.521.16	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.521.17	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time. The established Pressure Drop Range Limit shall be reset as follows: - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.521.18	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.521.19	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
TREA 238	Secondary Crusher L6 Cartridge Filter

Requirement number	Requirement and citation
5.522.1	The Permittee is authorized to construct and operate TREA 238 per the specifications listed in Appendix L. The authorization to construct expires 5 years after issuance of Air Emissions Permit No. 13700005-101. The control shall meet all applicable permit requirements. [Minn. R. 7007.0800, subp. 2(A)]
5.522.2	After the startup and operation of TREA 238, the Permittee shall vent emissions from EQUI 339 to TREA 238 whenever EQUI 339 operates, and operate and maintain TREA 238 at all times that any emissions are vented to TREA 238. The Permittee shall document periods of non-operation of the control equipment TREA 238 whenever EQUI 339 is operating. Note: TREA 238 will replace TREA 48. Prior to the startup and operation of TREA 238, the Permittee shall follow the requirements for TREA 48. After the startup and operation of TREA 238, TREA 48 shall be shut down, and the Permittee shall follow requirements for TREA 238. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.522.3	If the Permittee replaces TREA 238, the replacement control must meet or exceed the control efficiency requirements of TREA 238 as well as comply with all other requirements of TREA 238. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.522.4	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (2); 40 CFR 63.9610(a); 40 CFR 63.9631(a) (bag leak detection system required); 40 CFR 63.9631(a)(1)-(6) & (8); 40 CFR 63.9632(a); 40 CFR 63.9633; 40 CFR 63.9634(a) & (d); 40 CFR 63.9636(a)(1) & (2); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.522.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R.

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	7007.0800, subp. 2(A) & (B)]
5.522.6	Pressure Drop ≥ 0.5 and ≤ 8.0 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. The Permittee shall record the pressure drop at least once every 24 hours when in operation. [40 CFR 63.9631(a)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.522.7	The Permittee shall operate and maintain a bag leak detector at all times that the fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan. [Minn. R. 7007.0800, subp. (14), Minn. R. 7007.0800, subp. 2(A) & (B)]
5.522.8	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.522.9	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.522.10	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.522.11	Pressure Drop Daily Inspections and Recordkeeping: At least once each operating day, the Permittee must read and record the pressure drop across the cartridge filter. The Permittee must record the time and date of each pressure drop reading and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5]
5.522.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the alarm for the bag leak detector is triggered; or - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions must determine and correct the cause of the bag leak detector alarm, return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.522.13	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.522.14	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.522.15	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric

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	filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.522.16	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.522.17	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time. The established Pressure Drop Range Limit shall be reset as follows: - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.522.18	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.522.19	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
TREA 239	Secondary Crusher L8 Cartridge Filter
5.523.1	The Permittee is authorized to construct and operate TREA 239 per the specifications listed in Appendix L. The authorization to construct expires 5 years after issuance of Air Emissions Permit No. 13700005-101. The control shall meet all applicable permit requirements. [Minn. R. 7007.0800, subp. 2(A)]
5.523.2	After the startup and operation of TREA 239, the Permittee shall vent emissions from EQUI 340 to TREA 239 whenever EQUI 340 operates, and operate and maintain TREA 239 at all times that any

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	emissions are vented to TREA 239. The Permittee shall document periods of non-operation of the control equipment TREA 239 whenever EQUI 340 is operating. Note: TREA 239 will replace TREA 49. Prior to the startup and operation of TREA 239, the Permittee shall follow the requirements for TREA 49. After the startup and operation of TREA 239, TREA 49 shall be shut down, and the Permittee shall follow requirements for TREA 239. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.523.3	If the Permittee replaces TREA 239, the replacement control must meet or exceed the control efficiency requirements of TREA 239 as well as comply with all other requirements of TREA 239. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.523.4	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (2); 40 CFR 63.9610(a); 40 CFR 63.9631(a) (bag leak detection system required); 40 CFR 63.9631(a)(1)-(6) & (8); 40 CFR 63.9632(a); 40 CFR 63.9633; 40 CFR 63.9634(a) & (d); 40 CFR 63.9636(a)(1) & (2); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.523.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.523.6	Pressure Drop ≥ 0.5 and ≤ 8.0 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. The

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	Permittee shall record the pressure drop at least once every 24 hours when in operation. [40 CFR 63.9631(a)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.523.7	The Permittee shall operate and maintain a bag leak detector at all times that the fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan. [Minn. R. 7007.0800, subp. (14), Minn. R. 7007.0800, subp. 2(A) & (B)]
5.523.8	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron $\geq$ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.523.9	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron $\geq$ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.523.10	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.523.11	Pressure Drop Daily Inspections and Recordkeeping: At least once each operating day, the Permittee must read and record the pressure drop across the cartridge filter. The Permittee must record the time and date of each pressure drop reading and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5]
5.523.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the alarm for the bag leak detector is triggered; or - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions must determine and correct the cause of the bag leak detector alarm, return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.523.13	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.523.14	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.523.15	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.523.16	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be

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	separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.523.17	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time. The established Pressure Drop Range Limit shall be reset as follows: - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.523.18	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.523.19	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
TREA 240	Secondary Crusher L7 Cartridge Filter
5.524.1	The Permittee is authorized to construct and operate TREA 240 per the specifications listed in Appendix L. The authorization to construct expires 5 years after issuance of Air Emissions Permit No. 13700005-101. The control shall meet all applicable permit requirements. [Minn. R. 7007.0800, subp. 2(A)]
5.524.2	After the startup and operation of TREA 240, the Permittee shall vent emissions from EQUI 390 to TREA 240 whenever EQUI 390 operates, and operate and maintain TREA 240 at all times that any emissions are vented to TREA 240. The Permittee shall document periods of non-operation of the control equipment TREA 240 whenever EQUI 390 is operating. Note: TREA 240 will replace TREA 50. Prior to the startup and operation of TREA 240, the Permittee shall follow the requirements for TREA 50. After the startup and operation of TREA 240, TREA 50 shall be shut down, and the Permittee shall follow requirements for TREA 240. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]

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5.524.3	If the Permittee replaces TREA 240, the replacement control must meet or exceed the control efficiency requirements of TREA 240 as well as comply with all other requirements of TREA 240. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.524.4	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (2); 40 CFR 63.9610(a); 40 CFR 63.9631(a) (bag leak detection system required); 40 CFR 63.9631(a)(1)-(6) & (8); 40 CFR 63.9632(a); 40 CFR 63.9633; 40 CFR 63.9634(a) & (d); 40 CFR 63.9636(a)(1) & (2); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.524.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter $\geq$ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.524.6	Pressure Drop $\geq$ 0.5 and $\leq$ 8.0 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. The Permittee shall record the pressure drop at least once every 24 hours when in operation. [40 CFR 63.9631(a)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.524.7	The Permittee shall operate and maintain a bag leak detector at all times that the fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan. [Minn. R. 7007.0800, subp. (14), Minn. R. 7007.0800, subp. 2(A) & (B)]

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5.524.8	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron $\geq$ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.524.9	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron $\geq$ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.524.10	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.524.11	Pressure Drop Daily Inspections and Recordkeeping: At least once each operating day, the Permittee must read and record the pressure drop across the cartridge filter. The Permittee must record the time and date of each pressure drop reading and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5]
5.524.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the alarm for the bag leak detector is triggered; or - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions must determine and correct the cause of the bag leak detector alarm, return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.524.13	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.524.14	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.524.15	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.524.16	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.524.17	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated.

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	During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time. The established Pressure Drop Range Limit shall be reset as follows: - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.524.18	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.524.19	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
TREA 241	Secondary Crusher L9 Cartridge Filter
5.525.1	The Permittee is authorized to construct and operate TREA 241 per the specifications listed in Appendix L. The authorization to construct expires 5 years after issuance of Air Emissions Permit No. 13700005-101. The control shall meet all applicable permit requirements. [Minn. R. 7007.0800, subp. 2(A)]
5.525.2	After the startup and operation of TREA 241, the Permittee shall vent emissions from EQUI 341 to TREA 241 whenever EQUI 341 operates, and operate and maintain TREA 241 at all times that any emissions are vented to TREA 241. The Permittee shall document periods of non-operation of the control equipment TREA 241 whenever EQUI 341 is operating. Note: TREA 241 will replace TREA 51. Prior to the startup and operation of TREA 241, the Permittee shall follow the requirements for TREA 51. After the startup and operation of TREA 241, TREA 51 shall be shut down, and the Permittee shall follow requirements for TREA 241. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.525.3	If the Permittee replaces TREA 241, the replacement control must meet or exceed the control efficiency requirements of TREA 241 as well as comply with all other requirements of TREA 241. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to

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	the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.525.4	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (2); 40 CFR 63.9610(a); 40 CFR 63.9631(a) (bag leak detection system required); 40 CFR 63.9631(a)(1)-(6) & (8); 40 CFR 63.9632(a); 40 CFR 63.9633; 40 CFR 63.9634(a) & (d); 40 CFR 63.9636(a)(1) & (2); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.525.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.525.6	Pressure Drop ≥ 0.5 and ≤ 8.0 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. The Permittee shall record the pressure drop at least once every 24 hours when in operation. [40 CFR 63.9631(a)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.525.7	The Permittee shall operate and maintain a bag leak detector at all times that the fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan. [Minn. R. 7007.0800, subp. (14), Minn. R. 7007.0800, subp. 2(A) & (B)]
5.525.8	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.525.9	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.525.10	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and

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	Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.525.11	Pressure Drop Daily Inspections and Recordkeeping: At least once each operating day, the Permittee must read and record the pressure drop across the cartridge filter. The Permittee must record the time and date of each pressure drop reading and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5]
5.525.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the alarm for the bag leak detector is triggered; or - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions must determine and correct the cause of the bag leak detector alarm, return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.525.13	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.525.14	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.525.15	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.525.16	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.525.17	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time. The established Pressure Drop Range Limit shall be reset as follows: - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or

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	- if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.525.18	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.525.19	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
TREA 242	Secondary Crusher L10 Cartridge Filter
5.526.1	The Permittee is authorized to construct and operate TREA 242 per the specifications listed in Appendix L. The authorization to construct expires 5 years after issuance of Air Emissions Permit No. 13700005-101. The control shall meet all applicable permit requirements. [Minn. R. 7007.0800, subp. 2(A)]
5.526.2	After the startup and operation of TREA 242, the Permittee shall vent emissions from EQUI 5 to TREA 242 whenever EQUI 5 operates, and operate and maintain TREA 242 at all times that any emissions are vented to TREA 242. The Permittee shall document periods of non-operation of the control equipment TREA 242 whenever EQUI 5 is operating. Note: TREA 242 will replace TREA 52. Prior to the startup and operation of TREA 242, the Permittee shall follow the requirements for TREA 52. After the startup and operation of TREA 242, TREA 52 shall be shut down, and the Permittee shall follow requirements for 242. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.526.3	If the Permittee replaces TREA 242, the replacement control must meet or exceed the control efficiency requirements of TREA 242 as well as comply with all other requirements of TREA 242. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.526.4	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (2); 40 CFR 63.9610(a);

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	40 CFR 63.9631(a) (bag leak detection system required); 40 CFR 63.9631(a)(1)-(6) & (8); 40 CFR 63.9632(a); 40 CFR 63.9633; 40 CFR 63.9634(a) & (d); 40 CFR 63.9636(a)(1) & (2); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.526.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.526.6	Pressure Drop ≥ 0.5 and ≤ 8.0 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. The Permittee shall record the pressure drop at least once every 24 hours when in operation. [40 CFR 63.9631(a)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.526.7	The Permittee shall operate and maintain a bag leak detector at all times that the fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan. [Minn. R. 7007.0800, subp. (14), Minn. R. 7007.0800, subp. 2(A) & (B)]
5.526.8	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.526.9	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.526.10	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.526.11	Pressure Drop Daily Inspections and Recordkeeping: At least once each operating day, the Permittee must read and record the pressure drop across the cartridge filter. The Permittee must record the time and date of each pressure drop reading and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5]

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5.526.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the alarm for the bag leak detector is triggered; or - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions must determine and correct the cause of the bag leak detector alarm, return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.526.13	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.526.14	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.526.15	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.526.16	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.526.17	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time. The established Pressure Drop Range Limit shall be reset as follows: - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data

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	acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.526.18	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.526.19	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
TREA 243	Step III Coarse Crusher Pan Feeders Cartridge Filter
5.527.1	The Permittee is authorized to construct and operate TREA 243 per the specifications listed in Appendix L. The authorization to construct expires 5 years after issuance of Air Emissions Permit No. 13700005-101. The control shall meet all applicable permit requirements. [Minn. R. 7007.0800, subp. 2(A)]
5.527.2	After the startup and operation of TREA 243, the Permittee shall vent emissions from EQUI 281 and EQUI 375 to TREA 243 whenever EQUI 281 or EQUI 375 operates, and operate and maintain TREA 243 at all times that any emissions are vented to TREA 243. The Permittee shall document periods of non-operation of the control equipment TREA 243 whenever EQUI 281 or EQUI 375 is operating. Note: TREA 243 will replace TREA 120. Prior to the startup and operation of TREA 243, the Permittee shall follow the requirements for TREA 120. After the startup and operation of TREA 243, TREA 120 shall be shut down, and the Permittee shall follow requirements for 243. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.527.3	If the Permittee replaces TREA 243, the replacement control must meet or exceed the control efficiency requirements of TREA 243 as well as comply with all other requirements of TREA 243. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.527.4	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (2); 40 CFR 63.9610(a); 40 CFR 63.9631(a) (bag leak detection system required); 40 CFR 63.9631(a)(1)-(6) & (8); 40 CFR 63.9632(a); 40 CFR 63.9633; 40 CFR 63.9634(a) & (d); 40 CFR 63.9636(a)(1) & (2); 40 CFR 63.9636(b); 40 CFR 63.9637;

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	40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.527.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.527.6	Pressure Drop ≥ 0.5 and ≤ 8.0 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. The Permittee shall record the pressure drop at least once every 24 hours when in operation. [40 CFR 63.9631(a)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.527.7	The Permittee shall operate and maintain a bag leak detector at all times that the fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan. [Minn. R. 7007.0800, subp. (14), Minn. R. 7007.0800, subp. 2(A) & (B)]
5.527.8	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.527.9	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.527.10	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.527.11	Pressure Drop Daily Inspections and Recordkeeping: At least once each operating day, the Permittee must read and record the pressure drop across the cartridge filter. The Permittee must record the time and date of each pressure drop reading and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5]
5.527.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the alarm for the bag leak detector is triggered; or - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions must determine and correct the cause of the bag leak detector alarm, return the pressure drop to within the permitted range, and/or include completion of necessary repairs

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	identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.527.13	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.527.14	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.527.15	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.527.16	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.527.17	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time. The established Pressure Drop Range Limit shall be reset as follows: - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.527.18	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]

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5.527.19	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
TREA 244	Conveyor Transfer 011-02/03 Cartridge Filter
5.528.1	The Permittee is authorized to construct and operate TREA 244 per the specifications listed in Appendix L. The authorization to construct expires 5 years after issuance of Air Emissions Permit No. 13700005-101. The control shall meet all applicable permit requirements. [Minn. R. 7007.0800, subp. 2(A)]
5.528.2	After the startup and operation of TREA 244, the Permittee shall vent emissions from EQUI 324 to TREA 244 whenever EQUI 324 operates, and operate and maintain TREA 244 at all times that any emissions are vented to TREA 244. The Permittee shall document periods of non-operation of the control equipment TREA 244 whenever EQUI 324 is operating. Note: TREA 244 will replace TREA 126. Prior to the startup and operation of TREA 244, the Permittee shall follow the requirements for TREA 126. After the startup and operation of TREA 244, TREA 126 shall be shut down, and the Permittee shall follow requirements for TREA 244. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.528.3	If the Permittee replaces TREA 244, the replacement control must meet or exceed the control efficiency requirements of TREA 244 as well as comply with all other requirements of TREA 244. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.528.4	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (2); 40 CFR 63.9610(a); 40 CFR 63.9631(a) (bag leak detection system required); 40 CFR 63.9631(a)(1)-(6) & (8); 40 CFR 63.9632(a); 40 CFR 63.9633; 40 CFR 63.9634(a) & (d); 40 CFR 63.9636(a)(1) & (2); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if

Requirement number	Requirement and citation
	there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.528.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.528.6	Pressure Drop ≥ 0.5 and ≤ 8.0 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. The Permittee shall record the pressure drop at least once every 24 hours when in operation. [40 CFR 63.9631(a)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.528.7	The Permittee shall operate and maintain a bag leak detector at all times that the fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan. [Minn. R. 7007.0800, subp. (14), Minn. R. 7007.0800, subp. 2(A) & (B)]
5.528.8	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.528.9	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.528.10	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.528.11	Pressure Drop Daily Inspections and Recordkeeping: At least once each operating day, the Permittee must read and record the pressure drop across the cartridge filter. The Permittee must record the time and date of each pressure drop reading and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5]
5.528.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the alarm for the bag leak detector is triggered; or - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions must determine and correct the cause of the bag leak detector alarm, return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.528.13	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation.

Requirement number	Requirement and citation
	[Minn. R. 7007.0800, subp. 4]
5.528.14	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.528.15	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.528.16	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.528.17	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time. The established Pressure Drop Range Limit shall be reset as follows: - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.528.18	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.528.19	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
TREA 245	Secondary Crusher L11 Cartridge Filter

Requirement number	Requirement and citation
5.529.1	The Permittee is authorized to construct and operate TREA 245 per the specifications listed in Appendix L. The authorization to construct expires 5 years after issuance of Air Emissions Permit No. 13700005-101. The control shall meet all applicable permit requirements. [Minn. R. 7007.0800, subp. 2(A)]
5.529.2	After the startup and operation of TREA 245, the Permittee shall vent emissions from EQUI 9 to TREA 245 whenever EQUI 9 operates, and operate and maintain TREA 245 at all times that any emissions are vented to TREA 245. The Permittee shall document periods of non-operation of the control equipment TREA 245 whenever EQUI 9 is operating. Note: TREA 245 will replace TREA 57. Prior to the startup and operation of TREA 245, the Permittee shall follow the requirements for TREA 57. After the startup and operation of TREA 245, TREA 57 shall be shut down, and the Permittee shall follow requirements for 245. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.529.3	If the Permittee replaces TREA 245, the replacement control must meet or exceed the control efficiency requirements of TREA 245 as well as comply with all other requirements of TREA 245. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.529.4	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (2); 40 CFR 63.9610(a); 40 CFR 63.9631(a) (bag leak detection system required); 40 CFR 63.9631(a)(1)-(6) & (8); 40 CFR 63.9632(a); 40 CFR 63.9633; 40 CFR 63.9634(a) & (d); 40 CFR 63.9636(a)(1) & (2); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.529.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R.

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	7007.0800, subp. 2(A) & (B)]
5.529.6	Pressure Drop ≥ 0.5 and ≤ 8.0 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. The Permittee shall record the pressure drop at least once every 24 hours when in operation. [40 CFR 63.9631(a)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.529.7	The Permittee shall operate and maintain a bag leak detector at all times that the fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan. [Minn. R. 7007.0800, subp. (14), Minn. R. 7007.0800, subp. 2(A) & (B)]
5.529.8	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.529.9	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.529.10	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.529.11	Pressure Drop Daily Inspections and Recordkeeping: At least once each operating day, the Permittee must read and record the pressure drop across the cartridge filter. The Permittee must record the time and date of each pressure drop reading and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5]
5.529.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the alarm for the bag leak detector is triggered; or - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions must determine and correct the cause of the bag leak detector alarm, return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.529.13	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.529.14	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.529.15	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric

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	filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.529.16	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.529.17	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time. The established Pressure Drop Range Limit shall be reset as follows: - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.529.18	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.529.19	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
TREA 246	Secondary Crusher L12 Cartridge Filter
5.530.1	The Permittee is authorized to construct and operate TREA 246 per the specifications listed in Appendix L. The authorization to construct expires 5 years after issuance of Air Emissions Permit No. 13700005-101. The control shall meet all applicable permit requirements. [Minn. R. 7007.0800, subp. 2(A)]
5.530.2	After the startup and operation of TREA 246, the Permittee shall vent emissions from EQUI 285 to TREA 246 whenever EQUI 285 operates, and operate and maintain TREA 246 at all times that any

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	emissions are vented to TREA 246. The Permittee shall document periods of non-operation of the control equipment TREA 246 whenever EQUI 285 is operating. Note: TREA 246 will replace TREA 58. Prior to the startup and operation of TREA 246, the Permittee shall follow the requirements for TREA 58. After the startup and operation of TREA 246, TREA 58 shall be shut down, and the Permittee shall follow requirements for TREA 246. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.530.3	If the Permittee replaces TREA 246, the replacement control must meet or exceed the control efficiency requirements of TREA 246 as well as comply with all other requirements of TREA 246. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.530.4	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (2); 40 CFR 63.9610(a); 40 CFR 63.9631(a) (bag leak detection system required); 40 CFR 63.9631(a)(1)-(6) & (8); 40 CFR 63.9632(a); 40 CFR 63.9633; 40 CFR 63.9634(a) & (d); 40 CFR 63.9636(a)(1) & (2); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.530.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.530.6	Pressure Drop ≥ 0.5 and ≤ 8.0 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. The

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	Permittee shall record the pressure drop at least once every 24 hours when in operation. [40 CFR 63.9631(a)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.530.7	The Permittee shall operate and maintain a bag leak detector at all times that the fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan. [Minn. R. 7007.0800, subp. (14), Minn. R. 7007.0800, subp. 2(A) & (B)]
5.530.8	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron $\geq$ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.530.9	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron $\geq$ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.530.10	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.530.11	Pressure Drop Daily Inspections and Recordkeeping: At least once each operating day, the Permittee must read and record the pressure drop across the cartridge filter. The Permittee must record the time and date of each pressure drop reading and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5]
5.530.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the alarm for the bag leak detector is triggered; or - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions must determine and correct the cause of the bag leak detector alarm, return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.530.13	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.530.14	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.530.15	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.530.16	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be

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	separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.530.17	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time. The established Pressure Drop Range Limit shall be reset as follows: - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.530.18	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.530.19	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
TREA 247	Secondary Crusher L13 Cartridge Filter
5.531.1	The Permittee is authorized to construct and operate TREA 247 per the specifications listed in Appendix L. The authorization to construct expires 5 years after issuance of Air Emissions Permit No. 13700005-101. The control shall meet all applicable permit requirements. [Minn. R. 7007.0800, subp. 2(A)]
5.531.2	After the startup and operation of TREA 247, the Permittee shall vent emissions from EQUI 286 to TREA 247 whenever EQUI 286 operates, and operate and maintain TREA 247 at all times that any emissions are vented to TREA 247. The Permittee shall document periods of non-operation of the control equipment TREA 247 whenever EQUI 286 is operating. Note: TREA 247 will replace TREA 59. Prior to the startup and operation of TREA 247, the Permittee shall follow the requirements for TREA 59. After the startup and operation of TREA 247, TREA 59 shall be shut down, and the Permittee shall follow requirements for TREA 247. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]

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5.531.3	If the Permittee replaces TREA 247, the replacement control must meet or exceed the control efficiency requirements of TREA 247 as well as comply with all other requirements of TREA 247. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.531.4	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (2); 40 CFR 63.9610(a); 40 CFR 63.9631(a) (bag leak detection system required) 40 CFR 63.9631(a)(1)-(6) & (8); 40 CFR 63.9632(a); 40 CFR 63.9633; 40 CFR 63.9634(a) & (d); 40 CFR 63.9636(a)(1) & (2); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.531.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.531.6	Pressure Drop ≥ 0.5 and ≤ 8.0 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. The Permittee shall record the pressure drop at least once every 24 hours when in operation. [40 CFR 63.9631(a)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.531.7	The Permittee shall operate and maintain a bag leak detector at all times that the fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan. [Minn. R. 7007.0800, subp. (14), Minn. R. 7007.0800, subp. 2(A) & (B)]

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5.531.8	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron $\geq$ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.531.9	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron $\geq$ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.531.10	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.531.11	Pressure Drop Daily Inspections and Recordkeeping: At least once each operating day, the Permittee must read and record the pressure drop across the cartridge filter. The Permittee must record the time and date of each pressure drop reading and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5]
5.531.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the alarm for the bag leak detector is triggered; or - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions must determine and correct the cause of the bag leak detector alarm, return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.531.13	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.531.14	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.531.15	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.531.16	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.531.17	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated.

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	During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time. The established Pressure Drop Range Limit shall be reset as follows: - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.531.18	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.531.19	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
TREA 248	Secondary Crusher L14 Cartridge Filter
5.532.1	The Permittee shall vent emissions from EQUI 10 to TREA 248 whenever EQUI 10 operates, and operate and maintain TREA 248 at all times that any emissions are vented to TREA 248. The Permittee shall document periods of non-operation of the control equipment TREA 248 whenever EQUI 10 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.532.2	If the Permittee replaces TREA 248, the replacement control must meet or exceed the control efficiency requirements of TREA 248 as well as comply with all other requirements of TREA 248. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.532.3	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (2); 40 CFR 63.9610(a); 40 CFR 63.9631(a) (bag leak detection system required); 40 CFR 63.9631(a)(1)-(6) & (8);

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	40 CFR 63.9632(a); 40 CFR 63.9633; 40 CFR 63.9634(a) & (d); 40 CFR 63.9636(a)(1) & (2); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.532.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.532.5	Pressure Drop ≥ 0.5 and ≤ 8.0 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. The Permittee shall record the pressure drop at least once every 24 hours when in operation. [40 CFR 63.9631(a)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.532.6	The Permittee shall operate and maintain a bag leak detector at all times that the fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan. [Minn. R. 7007.0800, subp. (14), Minn. R. 7007.0800, subp. 2(A) & (B)]
5.532.7	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.532.8	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.532.9	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.532.10	Pressure Drop Daily Inspections and Recordkeeping: At least once each operating day, the Permittee must read and record the pressure drop across the cartridge filter. The Permittee must record the time and date of each pressure drop reading and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5]
5.532.11	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the

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	following occur: - the alarm for the bag leak detector is triggered; or - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions must determine and correct the cause of the bag leak detector alarm, return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.532.12	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.532.13	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.532.14	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.532.15	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.532.16	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time. The established Pressure Drop Range Limit shall be reset as follows: - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range

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	Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.532.17	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.532.18	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
TREA 249	Secondary Crusher L15 Cartridge Filter
5.533.1	The Permittee shall vent emissions from EQUI 287 to TREA 249 whenever EQUI 287 operates, and operate and maintain TREA 249 at all times that any emissions are vented to TREA 249. The Permittee shall document periods of non-operation of the control equipment TREA 249 whenever EQUI 287 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.533.2	If the Permittee replaces TREA 249, the replacement control must meet or exceed the control efficiency requirements of TREA 249 as well as comply with all other requirements of TREA 249. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.533.3	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (2); 40 CFR 63.9610(a); 40 CFR 63.9631(a) (bag leak detection system required); 40 CFR 63.9631(a)(1)-(6) & (8); 40 CFR 63.9632(a); 40 CFR 63.9633; 40 CFR 63.9634(a) & (d); 40 CFR 63.9636(a)(1) & (2); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]

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5.533.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.533.5	Pressure Drop ≥ 0.5 and ≤ 8.0 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. The Permittee shall record the pressure drop at least once every 24 hours when in operation. [40 CFR 63.9631(a)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.533.6	The Permittee shall operate and maintain a bag leak detector at all times that the fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan. [Minn. R. 7007.0800, subp. (14), Minn. R. 7007.0800, subp. 2(A) & (B)]
5.533.7	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.533.8	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.533.9	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.533.10	Pressure Drop Daily Inspections and Recordkeeping: At least once each operating day, the Permittee must read and record the pressure drop across the cartridge filter. The Permittee must record the time and date of each pressure drop reading and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5]
5.533.11	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the alarm for the bag leak detector is triggered; or - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions must determine and correct the cause of the bag leak detector alarm, return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.533.12	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.533.13	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]

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5.533.14	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.533.15	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.533.16	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time. The established Pressure Drop Range Limit shall be reset as follows: - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.533.17	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.533.18	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
TREA 250	Tertiary Crusher L18 Cartridge Filter
5.534.1	The Permittee is authorized to construct and operate TREA 250 per the specifications listed in Appendix L. The authorization to construct expires 5 years after issuance of Air Emissions Permit No. 13700005-101. The control shall meet all applicable permit requirements. [Minn. R. 7007.0800, subp. 2(A)]

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5.534.2	After the startup and operation of TREA 250, the Permittee shall vent emissions from EQUI 297 to TREA 250 whenever EQUI 297 operates, and operate and maintain TREA 250 at all times that any emissions are vented to TREA 250. The Permittee shall document periods of non-operation of the control equipment TREA 250 whenever EQUI 297 is operating. Note: TREA 250 will replace TREA 66. Prior to the startup and operation of TREA 250, the Permittee shall follow the requirements for TREA 66. After the startup and operation of TREA 250, TREA 66 shall be shut down, and the Permittee shall follow requirements for TREA 250. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.534.3	If the Permittee replaces TREA 250, the replacement control must meet or exceed the control efficiency requirements of TREA 250 as well as comply with all other requirements of TREA 250. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.534.4	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (2); 40 CFR 63.9610(a); 40 CFR 63.9631(a) (bag leak detection system required); 40 CFR 63.9631(a)(1)-(6) & (8); 40 CFR 63.9632(a); 40 CFR 63.9633; 40 CFR 63.9634(a) & (d); 40 CFR 63.9636(a)(1) & (2); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.534.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.534.6	Pressure Drop ≥ 0.5 and ≤ 8.0 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded pressure drop is outside the required range, the emissions during that time shall be

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	considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. The Permittee shall record the pressure drop at least once every 24 hours when in operation. [40 CFR 63.9631(a)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.534.7	The Permittee shall operate and maintain a bag leak detector at all times that the fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan. [Minn. R. 7007.0800, subp. (14), Minn. R. 7007.0800, subp. 2(A) & (B)]
5.534.8	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron $\geq$ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.534.9	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron $\geq$ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.534.10	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.534.11	Pressure Drop Daily Inspections and Recordkeeping: At least once each operating day, the Permittee must read and record the pressure drop across the cartridge filter. The Permittee must record the time and date of each pressure drop reading and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5]
5.534.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the alarm for the bag leak detector is triggered; or - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions must determine and correct the cause of the bag leak detector alarm, return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.534.13	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.534.14	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.534.15	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.534.16	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter

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	not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.534.17	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time. The established Pressure Drop Range Limit shall be reset as follows: - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.534.18	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.534.19	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
TREA 251	Tertiary Crusher L21 Cartridge Filter
5.535.1	The Permittee is authorized to construct and operate TREA 251 per the specifications listed in Appendix L. The authorization to construct expires 5 years after issuance of Air Emissions Permit No. 13700005-101. The control shall meet all applicable permit requirements. [Minn. R. 7007.0800, subp. 2(A)]
5.535.2	After the startup and operation of TREA 251, the Permittee shall vent emissions from EQUI 300 to TREA 251 whenever EQUI 300 operates, and operate and maintain TREA 251 at all times that any emissions are vented to TREA 251. The Permittee shall document periods of non-operation of the control equipment TREA 251 whenever EQUI 300 is operating. Note: TREA 251 will replace TREA 69. Prior to the startup and operation of TREA 251, the Permittee shall follow the requirements for TREA 69. After the startup and operation of TREA 251, TREA 69 shall

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	be shut down, and the Permittee shall follow requirements for TREA 69. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.535.3	If the Permittee replaces TREA 251, the replacement control must meet or exceed the control efficiency requirements of TREA 251 as well as comply with all other requirements of TREA 251. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.535.4	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (2); 40 CFR 63.9610(a); 40 CFR 63.9631(a) (bag leak detection system required); 40 CFR 63.9631(a)(1)-(6) & (8); 40 CFR 63.9632(a); 40 CFR 63.9633; 40 CFR 63.9634(a) & (d); 40 CFR 63.9636(a)(1) & (2); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.535.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.535.6	Pressure Drop ≥ 0.5 and ≤ 8.0 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. The Permittee shall record the pressure drop at least once every 24 hours when in operation. [40 CFR 63.9631(a)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.535.7	The Permittee shall operate and maintain a bag leak detector at all times that the fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak

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	detector shall be included in the O & M Plan. [Minn. R. 7007.0800, subp. (14), Minn. R. 7007.0800, subp. 2(A) & (B)]
5.535.8	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron $\geq$ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.535.9	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron $\geq$ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.535.10	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.535.11	Pressure Drop Daily Inspections and Recordkeeping: At least once each operating day, the Permittee must read and record the pressure drop across the cartridge filter. The Permittee must record the time and date of each pressure drop reading and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5]
5.535.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the alarm for the bag leak detector is triggered; or - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions must determine and correct the cause of the bag leak detector alarm, return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.535.13	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.535.14	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.535.15	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.535.16	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.535.17	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values

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	recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time. The established Pressure Drop Range Limit shall be reset as follows: - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.535.18	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.535.19	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
TREA 252	Tertiary Crusher L19 Cartridge Filter
5.536.1	The Permittee is authorized to construct and operate TREA 252 per the specifications listed in Appendix L. The authorization to construct expires 5 years after issuance of Air Emissions Permit No. 13700005-101. The control shall meet all applicable permit requirements. [Minn. R. 7007.0800, subp. 2(A)]
5.536.2	After the startup and operation of TREA 252, the Permittee shall vent emissions from EQUI 298 to TREA 252 whenever EQUI 298 operates, and operate and maintain TREA 252 at all times that any emissions are vented to TREA 252. The Permittee shall document periods of non-operation of the control equipment TREA 252 whenever EQUI 298 is operating. Note: TREA 252 will replace TREA 67. Prior to the startup and operation of TREA 252, the Permittee shall follow the requirements for TREA 67. After the startup and operation of TREA 252, TREA 67 shall be shut down, and the Permittee shall follow requirements for TREA 252. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.536.3	If the Permittee replaces TREA 252, the replacement control must meet or exceed the control efficiency requirements of TREA 252 as well as comply with all other requirements of TREA 252. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable.

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	If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.536.4	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (2); 40 CFR 63.9610(a); 40 CFR 63.9631(a) (bag leak detection system required); 40 CFR 63.9631(a)(1)-(6) & (8); 40 CFR 63.9632(a); 40 CFR 63.9633; 40 CFR 63.9634(a) & (d); 40 CFR 63.9636(a)(1) & (2); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.536.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.536.6	Pressure Drop ≥ 0.5 and ≤ 8.0 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. The Permittee shall record the pressure drop at least once every 24 hours when in operation. [40 CFR 63.9631(a)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.536.7	The Permittee shall operate and maintain a bag leak detector at all times that the fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan. [Minn. R. 7007.0800, subp. (14), Minn. R. 7007.0800, subp. 2(A) & (B)]
5.536.8	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.536.9	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R.

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	7007.0800, subp. 2(A) & (B)]
5.536.10	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.536.11	Pressure Drop Daily Inspections and Recordkeeping: At least once each operating day, the Permittee must read and record the pressure drop across the cartridge filter. The Permittee must record the time and date of each pressure drop reading and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5]
5.536.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the alarm for the bag leak detector is triggered; or - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions must determine and correct the cause of the bag leak detector alarm, return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.536.13	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.536.14	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.536.15	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.536.16	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.536.17	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time.

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	The established Pressure Drop Range Limit shall be reset as follows: - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.536.18	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.536.19	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
TREA 253	Tertiary Crusher L20 Cartridge Filter
5.537.1	The Permittee is authorized to construct and operate TREA 253 per the specifications listed in Appendix L. The authorization to construct expires 5 years after issuance of Air Emissions Permit No. 13700005-101. The control shall meet all applicable permit requirements. [Minn. R. 7007.0800, subp. 2(A)]
5.537.2	After the startup and operation of TREA 253, the Permittee shall vent emissions from EQUI 299 to TREA 253 whenever EQUI 299 operates, and operate and maintain TREA 253 at all times that any emissions are vented to TREA 253. The Permittee shall document periods of non-operation of the control equipment TREA 253 whenever EQUI 299 is operating. Note: TREA 253 will replace TREA 68. Prior to the startup and operation of TREA 253, the Permittee shall follow the requirements for TREA 68. After the startup and operation of TREA 253, TREA 68 shall be shut down, and the Permittee shall follow requirements for TREA 253. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.537.3	If the Permittee replaces TREA 253, the replacement control must meet or exceed the control efficiency requirements of TREA 253 as well as comply with all other requirements of TREA 253. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.537.4	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows:

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	40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (2); 40 CFR 63.9610(a); 40 CFR 63.9631(a) (bag leak detection system required); 40 CFR 63.9631(a)(1)-(6) & (8); 40 CFR 63.9632(a); 40 CFR 63.9633; 40 CFR 63.9634(a) & (d); 40 CFR 63.9636(a)(1) & (2); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.537.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.537.6	Pressure Drop ≥ 0.5 and ≤ 8.0 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. The Permittee shall record the pressure drop at least once every 24 hours when in operation. [40 CFR 63.9631(a)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.537.7	The Permittee shall operate and maintain a bag leak detector at all times that the fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan. [Minn. R. 7007.0800, subp. (14), Minn. R. 7007.0800, subp. 2(A) & (B)]
5.537.8	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.537.9	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.537.10	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.537.11	Pressure Drop Daily Inspections and Recordkeeping: At least once each operating day, the Permittee must read and record the pressure drop across the cartridge filter. The Permittee must record the time and date of each pressure drop reading and whether or not the observed pressure drop was

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	within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5]
5.537.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the alarm for the bag leak detector is triggered; or - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions must determine and correct the cause of the bag leak detector alarm, return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.537.13	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.537.14	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.537.15	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.537.16	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.537.17	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time. The established Pressure Drop Range Limit shall be reset as follows: - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value

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	(lower bound). Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.537.18	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.537.19	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
TREA 254	Tertiary Crusher L22 Cartridge Filter
5.538.1	The Permittee is authorized to construct and operate TREA 254 per the specifications listed in Appendix L. The authorization to construct expires 5 years after issuance of Air Emissions Permit No. 13700005-101. The control shall meet all applicable permit requirements. [Minn. R. 7007.0800, subp. 2(A)]
5.538.2	After the startup and operation of TREA 254, the Permittee shall vent emissions from EQUI 301 to TREA 254 whenever EQUI 301 operates, and operate and maintain TREA 254 at all times that any emissions are vented to TREA 254. The Permittee shall document periods of non-operation of the control equipment TREA 254 whenever EQUI 301 is operating. Note: TREA 254 will replace TREA 70. Prior to the startup and operation of TREA 301, the Permittee shall follow the requirements for TREA 70. After the startup and operation of TREA 301, TREA 70 shall be shut down, and the Permittee shall follow requirements for TREA 254. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.538.3	If the Permittee replaces TREA 254, the replacement control must meet or exceed the control efficiency requirements of TREA 254 as well as comply with all other requirements of TREA 254. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.538.4	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (2); 40 CFR 63.9610(a); 40 CFR 63.9631(a) (bag leak detection system required); 40 CFR 63.9631(a)(1)-(6) & (8); 40 CFR 63.9632(a); 40 CFR 63.9633; 40 CFR 63.9634(a) & (d);

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	40 CFR 63.9636(a)(1) & (2); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.538.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.538.6	Pressure Drop ≥ 0.5 and ≤ 8.0 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. The Permittee shall record the pressure drop at least once every 24 hours when in operation. [40 CFR 63.9631(a)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.538.7	The Permittee shall operate and maintain a bag leak detector at all times that the fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan. [Minn. R. 7007.0800, subp. (14), Minn. R. 7007.0800, subp. 2(A) & (B)]
5.538.8	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.538.9	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.538.10	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.538.11	Pressure Drop Daily Inspections and Recordkeeping: At least once each operating day, the Permittee must read and record the pressure drop across the cartridge filter. The Permittee must record the time and date of each pressure drop reading and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5]
5.538.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the alarm for the bag leak detector is triggered; or - the recorded pressure drop is outside the required operating range; or

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	- the fabric filter or any of its components are found during the inspections to need repair. Corrective actions must determine and correct the cause of the bag leak detector alarm, return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.538.13	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.538.14	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.538.15	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.538.16	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.538.17	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time. The established Pressure Drop Range Limit shall be reset as follows: - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]

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5.538.18	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.538.19	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
TREA 255	Tertiary Crusher L23 Cartridge Filter
5.539.1	The Permittee is authorized to construct and operate TREA 255 per the specifications listed in Appendix L. The authorization to construct expires 5 years after issuance of Air Emissions Permit No. 13700005-101. The control shall meet all applicable permit requirements. [Minn. R. 7007.0800, subp. 2(A)]
5.539.2	After the startup and operation of TREA 255, the Permittee shall vent emissions from EQUI 674 to TREA 255 whenever EQUI 674 operates, and operate and maintain TREA 255 at all times that any emissions are vented to TREA 255. The Permittee shall document periods of non-operation of the control equipment TREA 255 whenever EQUI 674 is operating. Note: TREA 255 will replace TREA 71. Prior to the startup and operation of TREA 255, the Permittee shall follow the requirements for TREA 71. After the startup and operation of TREA 255, TREA 71 shall be shut down, and the Permittee shall follow requirements for TREA 255. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.539.3	If the Permittee replaces TREA 255, the replacement control must meet or exceed the control efficiency requirements of TREA 255 as well as comply with all other requirements of TREA 255. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.539.4	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (2); 40 CFR 63.9610(a); 40 CFR 63.9631(a) (bag leak detection system required); 40 CFR 63.9631(a)(1)-(6) & (8); 40 CFR 63.9632(a); 40 CFR 63.9633; 40 CFR 63.9634(a) & (d); 40 CFR 63.9636(a)(1) & (2); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652.

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	A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.539.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter $\geq$ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.539.6	Pressure Drop $\geq$ 0.5 and $\leq$ 8.0 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. The Permittee shall record the pressure drop at least once every 24 hours when in operation. [40 CFR 63.9631(a)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.539.7	The Permittee shall operate and maintain a bag leak detector at all times that the fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan. [Minn. R. 7007.0800, subp. (14), Minn. R. 7007.0800, subp. 2(A) & (B)]
5.539.8	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron $\geq$ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.539.9	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron $\geq$ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.539.10	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.539.11	Pressure Drop Daily Inspections and Recordkeeping: At least once each operating day, the Permittee must read and record the pressure drop across the cartridge filter. The Permittee must record the time and date of each pressure drop reading and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5]
5.539.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the alarm for the bag leak detector is triggered; or - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions must determine and correct the cause of the bag leak detector alarm, return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]

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5.539.13	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.539.14	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.539.15	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.539.16	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.539.17	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time. The established Pressure Drop Range Limit shall be reset as follows: - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.539.18	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.539.19	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a

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	permit amendment incorporating the change. [Minn. R. 7017.2025]
TREA 256	Tertiary Crusher L28 Cartridge Filter
5.540.1	The Permittee is authorized to construct and operate TREA 256 per the specifications listed in Appendix L. The authorization to construct expires 5 years after issuance of Air Emissions Permit No. 13700005-101. The control shall meet all applicable permit requirements. [Minn. R. 7007.0800, subp. 2(A)]
5.540.2	After the startup and operation of TREA 256, the Permittee shall vent emissions from EQUI 673 to TREA 256 whenever EQUI 673 operates, and operate and maintain TREA 256 at all times that any emissions are vented to TREA 256. The Permittee shall document periods of non-operation of the control equipment TREA 256 whenever EQUI 673 is operating. Note: TREA 256 will replace TREA 76. Prior to the startup and operation of TREA 256, the Permittee shall follow the requirements for TREA 76. After the startup and operation of TREA 256, TREA 76 shall be shut down, and the Permittee shall follow requirements for TREA 256. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.540.3	If the Permittee replaces TREA 256, the replacement control must meet or exceed the control efficiency requirements of TREA 256 as well as comply with all other requirements of TREA 256. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.540.4	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (2); 40 CFR 63.9610(a); 40 CFR 63.9631(a) (bag leak detection system required); 40 CFR 63.9631(a)(1)-(6) & (8); 40 CFR 63.9632(a); 40 CFR 63.9633; 40 CFR 63.9634(a) & (d); 40 CFR 63.9636(a)(1) & (2); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]

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5.540.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.540.6	Pressure Drop ≥ 0.5 and ≤ 8.0 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. The Permittee shall record the pressure drop at least once every 24 hours when in operation. [40 CFR 63.9631(a)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.540.7	The Permittee shall operate and maintain a bag leak detector at all times that the fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan. [Minn. R. 7007.0800, subp. (14), Minn. R. 7007.0800, subp. 2(A) & (B)]
5.540.8	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.540.9	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.540.10	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.540.11	Pressure Drop Daily Inspections and Recordkeeping: At least once each operating day, the Permittee must read and record the pressure drop across the cartridge filter. The Permittee must record the time and date of each pressure drop reading and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5]
5.540.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the alarm for the bag leak detector is triggered; or - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions must determine and correct the cause of the bag leak detector alarm, return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.540.13	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.540.14	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]

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5.540.15	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.540.16	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.540.17	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time. The established Pressure Drop Range Limit shall be reset as follows: - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.540.18	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.540.19	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
TREA 257	Tertiary Crusher L24 Cartridge Filter
5.541.1	The Permittee is authorized to construct and operate TREA 257 per the specifications listed in Appendix L. The authorization to construct expires 5 years after issuance of Air Emissions Permit No. 13700005-101. The control shall meet all applicable permit requirements. [Minn. R. 7007.0800, subp. 2(A)]

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5.541.2	After the startup and operation of TREA 257, the Permittee shall vent emissions from EQUI 303 to TREA 257 whenever EQUI 303 operates, and operate and maintain TREA 257 at all times that any emissions are vented to TREA 257. The Permittee shall document periods of non-operation of the control equipment TREA 257 whenever EQUI 303 is operating. Note: TREA 257 will replace TREA 72. Prior to the startup and operation of TREA 257, the Permittee shall follow the requirements for TREA 72. After the startup and operation of TREA 257, TREA 72 shall be shut down, and the Permittee shall follow requirements for TREA 257. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.541.3	If the Permittee replaces TREA 257, the replacement control must meet or exceed the control efficiency requirements of TREA 257 as well as comply with all other requirements of TREA 257. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.541.4	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (2); 40 CFR 63.9610(a); 40 CFR 63.9631(a) (bag leak detection system required); 40 CFR 63.9631(a)(1)-(6) & (8); 40 CFR 63.9632(a); 40 CFR 63.9633; 40 CFR 63.9634(a) & (d); 40 CFR 63.9636(a)(1) & (2); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.541.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.541.6	Pressure Drop ≥ 0.5 and ≤ 8.0 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded pressure drop is outside the required range, the emissions during that time shall be

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	considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. The Permittee shall record the pressure drop at least once every 24 hours when in operation. [40 CFR 63.9631(a)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.541.7	The Permittee shall operate and maintain a bag leak detector at all times that the fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan. [Minn. R. 7007.0800, subp. (14), Minn. R. 7007.0800, subp. 2(A) & (B)]
5.541.8	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron $\geq$ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.541.9	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron $\geq$ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.541.10	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.541.11	Pressure Drop Daily Inspections and Recordkeeping: At least once each operating day, the Permittee must read and record the pressure drop across the cartridge filter. The Permittee must record the time and date of each pressure drop reading and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5]
5.541.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the alarm for the bag leak detector is triggered; or - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions must determine and correct the cause of the bag leak detector alarm, return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.541.13	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.541.14	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.541.15	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.541.16	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter

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	not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.541.17	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time. The established Pressure Drop Range Limit shall be reset as follows: - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.541.18	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.541.19	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
TREA 258	Tertiary Crusher L25 Cartridge Filter
5.542.1	The Permittee is authorized to construct and operate TREA 258 per the specifications listed in Appendix L. The authorization to construct expires 5 years after issuance of Air Emissions Permit No. 13700005-101. The control shall meet all applicable permit requirements. [Minn. R. 7007.0800, subp. 2(A)]
5.542.2	After the startup and operation of TREA 258, the Permittee shall vent emissions from EQUI 675 to TREA 258 whenever EQUI 675 operates, and operate and maintain TREA 258 at all times that any emissions are vented to TREA 258. The Permittee shall document periods of non-operation of the control equipment TREA 258 whenever EQUI 675 is operating. Note: TREA 258 will replace TREA 73. Prior to the startup and operation of TREA 258, the Permittee shall follow the requirements for TREA 73. After the startup and operation of TREA 258, TREA 73 shall

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	be shut down, and the Permittee shall follow requirements for TREA 258. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.542.3	If the Permittee replaces TREA 258, the replacement control must meet or exceed the control efficiency requirements of TREA 258 as well as comply with all other requirements of TREA 258. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.542.4	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (2); 40 CFR 63.9610(a); 40 CFR 63.9631(a) (bag leak detection system required); 40 CFR 63.9631(a)(1)-(6) & (8); 40 CFR 63.9632(a); 40 CFR 63.9633; 40 CFR 63.9634(a) & (d); 40 CFR 63.9636(a)(1) & (2); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.542.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.542.6	Pressure Drop ≥ 0.5 and ≤ 8.0 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. The Permittee shall record the pressure drop at least once every 24 hours when in operation. [40 CFR 63.9631(a)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.542.7	The Permittee shall operate and maintain a bag leak detector at all times that the fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak

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	detector shall be included in the O & M Plan. [Minn. R. 7007.0800, subp. (14), Minn. R. 7007.0800, subp. 2(A) & (B)]
5.542.8	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron $\geq$ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.542.9	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron $\geq$ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.542.10	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.542.11	Pressure Drop Daily Inspections and Recordkeeping: At least once each operating day, the Permittee must read and record the pressure drop across the cartridge filter. The Permittee must record the time and date of each pressure drop reading and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5]
5.542.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the alarm for the bag leak detector is triggered; or - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions must determine and correct the cause of the bag leak detector alarm, return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.542.13	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.542.14	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.542.15	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.542.16	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.542.17	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values

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	recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time. The established Pressure Drop Range Limit shall be reset as follows: - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.542.18	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.542.19	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
TREA 259	Tertiary Crusher L26 Cartridge Filter
5.543.1	The Permittee is authorized to construct and operate TREA 259 per the specifications listed in Appendix L. The authorization to construct expires 5 years after issuance of Air Emissions Permit No. 13700005-101. The control shall meet all applicable permit requirements. [Minn. R. 7007.0800, subp. 2(A)]
5.543.2	After the startup and operation of TREA 259, the Permittee shall vent emissions from EQUI 305 to TREA 259 whenever EQUI 305 operates, and operate and maintain TREA 259 at all times that any emissions are vented to TREA 259. The Permittee shall document periods of non-operation of the control equipment TREA 259 whenever EQUI 305 is operating. Note: TREA 259 will replace TREA 74. Prior to the startup and operation of TREA 259, the Permittee shall follow the requirements for TREA 74. After the startup and operation of TREA 259, TREA 74 shall be shut down, and the Permittee shall follow requirements for TREA 259. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.543.3	If the Permittee replaces TREA 259, the replacement control must meet or exceed the control efficiency requirements of TREA 259 as well as comply with all other requirements of TREA 259. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable.

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	If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.543.4	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (2); 40 CFR 63.9610(a); 40 CFR 63.9631(a) (bag leak detection system required); 40 CFR 63.9631(a)(1)-(6) & (8); 40 CFR 63.9632(a); 40 CFR 63.9633; 40 CFR 63.9634(a) & (d); 40 CFR 63.9636(a)(1) & (2); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.543.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.543.6	Pressure Drop ≥ 0.5 and ≤ 8.0 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. The Permittee shall record the pressure drop at least once every 24 hours when in operation. [40 CFR 63.9631(a)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.543.7	The Permittee shall operate and maintain a bag leak detector at all times that the fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan. [Minn. R. 7007.0800, subp. (14), Minn. R. 7007.0800, subp. 2(A) & (B)]
5.543.8	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.543.9	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R.

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	7007.0800, subp. 2(A) & (B)]
5.543.10	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.543.11	Pressure Drop Daily Inspections and Recordkeeping: At least once each operating day, the Permittee must read and record the pressure drop across the cartridge filter. The Permittee must record the time and date of each pressure drop reading and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5]
5.543.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the alarm for the bag leak detector is triggered; or - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions must determine and correct the cause of the bag leak detector alarm, return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.543.13	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.543.14	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.543.15	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.543.16	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.543.17	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time.

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	The established Pressure Drop Range Limit shall be reset as follows: - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.543.18	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.543.19	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
TREA 260	Tertiary Crusher L27 Cartridge Filter
5.544.1	The Permittee is authorized to construct and operate TREA 260 per the specifications listed in Appendix L. The authorization to construct expires 5 years after issuance of Air Emissions Permit No. 13700005-101. The control shall meet all applicable permit requirements. [Minn. R. 7007.0800, subp. 2(A)]
5.544.2	After the startup and operation of TREA 260, the Permittee shall vent emissions from EQUI 306 to TREA 260 whenever EQUI 306 operates, and operate and maintain TREA 260 at all times that any emissions are vented to TREA 260. The Permittee shall document periods of non-operation of the control equipment TREA 260 whenever EQUI 306 is operating. Note: TREA 260 will replace TREA 75. Prior to the startup and operation of TREA 260, the Permittee shall follow the requirements for TREA 75. After the startup and operation of TREA 260, TREA 75 shall be shut down, and the Permittee shall follow requirements for TREA 260. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.544.3	If the Permittee replaces TREA 260, the replacement control must meet or exceed the control efficiency requirements of TREA 260 as well as comply with all other requirements of TREA 260. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.544.4	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows:

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	40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (2); 40 CFR 63.9610(a); 40 CFR 63.9631(a) (bag leak detection system required); 40 CFR 63.9631(a)(1)-(6) & (8); 40 CFR 63.9632(a); 40 CFR 63.9633; 40 CFR 63.9634(a) & (d); 40 CFR 63.9636(a)(1) & (2); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.544.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.544.6	Pressure Drop ≥ 0.5 and ≤ 8.0 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. The Permittee shall record the pressure drop at least once every 24 hours when in operation. [40 CFR 63.9631(a)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.544.7	The Permittee shall operate and maintain a bag leak detector at all times that the fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan. [Minn. R. 7007.0800, subp. (14), Minn. R. 7007.0800, subp. 2(A) & (B)]
5.544.8	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.544.9	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.544.10	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.544.11	Pressure Drop Daily Inspections and Recordkeeping: At least once each operating day, the Permittee must read and record the pressure drop across the cartridge filter. The Permittee must record the time and date of each pressure drop reading and whether or not the observed pressure drop was

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	within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5]
5.544.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the alarm for the bag leak detector is triggered; or - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions must determine and correct the cause of the bag leak detector alarm, return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.544.13	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.544.14	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.544.15	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.544.16	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.544.17	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time. The established Pressure Drop Range Limit shall be reset as follows: - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value

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	(lower bound). Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.544.18	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.544.19	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
TREA 261	Conveyor Transfer 009-020 Cartridge Filter
5.545.1	The Permittee is authorized to construct and operate TREA 261 per the specifications listed in Appendix L. The authorization to construct expires 5 years after issuance of Air Emissions Permit No. 13700005-101. The control shall meet all applicable permit requirements. [Minn. R. 7007.0800, subp. 2(A)]
5.545.2	After the startup and operation of TREA 261, the Permittee shall vent emissions from EQUI 173, EQUI 240, EQUI 241 and EQUI 395 to TREA 261 whenever EQUI 173, EQUI 240, EQUI 241 or EQUI 395 operates, and operate and maintain TREA 261 at all times that any emissions are vented to TREA 261. The Permittee shall document periods of non-operation of the control equipment TREA 261 whenever EQUI 173, EQUI 240, EQUI 241 or EQUI 395 is operating. Note: TREA 261 will replace TREA 86. Prior to the startup and operation of TREA 261, the Permittee shall follow the requirements for TREA 86. After the startup and operation of TREA 261, TREA 86 shall be shut down, and the Permittee shall follow requirements for TREA 261. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.545.3	If the Permittee replaces TREA 261, the replacement control must meet or exceed the control efficiency requirements of TREA 261 as well as comply with all other requirements of TREA 261. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.545.4	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (2); 40 CFR 63.9610(a); 40 CFR 63.9631(a) (bag leak detection system required); 40 CFR 63.9631(a)(1)-(6) & (8); 40 CFR 63.9632(a); 40 CFR 63.9633;

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	40 CFR 63.9634(a) & (d); 40 CFR 63.9636(a)(1) & (2); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.545.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.545.6	Pressure Drop ≥ 0.5 and ≤ 8.0 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. The Permittee shall record the pressure drop at least once every 24 hours when in operation. [40 CFR 63.9631(a)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.545.7	The Permittee shall operate and maintain a bag leak detector at all times that the fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan. [Minn. R. 7007.0800, subp. (14), Minn. R. 7007.0800, subp. 2(A) & (B)]
5.545.8	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.545.9	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.545.10	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.545.11	Pressure Drop Daily Inspections and Recordkeeping: At least once each operating day, the Permittee must read and record the pressure drop across the cartridge filter. The Permittee must record the time and date of each pressure drop reading and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5]
5.545.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the alarm for the bag leak detector is triggered; or

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	- the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions must determine and correct the cause of the bag leak detector alarm, return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.545.13	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.545.14	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.545.15	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.545.16	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.545.17	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time. The established Pressure Drop Range Limit shall be reset as follows: - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800,

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	subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.545.18	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.545.19	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
TREA 262	Conveyor Transfer 003-004 Cartridge Filter
5.546.1	The Permittee is authorized to construct and operate TREA 262 per the specifications listed in Appendix L. The authorization to construct expires 5 years after issuance of Air Emissions Permit No. 13700005-101. The control shall meet all applicable permit requirements. [Minn. R. 7007.0800, subp. 2(A)]
5.546.2	After the startup and operation of TREA 262, the Permittee shall vent emissions from EQUI 12 and EQUI 290 to TREA 262 whenever EQUI 12 or EQUI 290 operates, and operate and maintain TREA 262 at all times that any emissions are vented to TREA 262. The Permittee shall document periods of non-operation of the control equipment TREA 262 whenever EQUI 12 or EQUI 290 is operating. Note: TREA 262 will replace TREA 64. Prior to the startup and operation of TREA 262, the Permittee shall follow the requirements for TREA 64. After the startup and operation of TREA 262, TREA 64 shall be shut down, and the Permittee shall follow requirements for TREA 262. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.546.3	If the Permittee replaces TREA 262, the replacement control must meet or exceed the control efficiency requirements of TREA 262 as well as comply with all other requirements of TREA 262. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.546.4	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (2); 40 CFR 63.9610(a); 40 CFR 63.9631(a) (bag leak detection system required); 40 CFR 63.9631(a)(1)-(6) & (8); 40 CFR 63.9632(a); 40 CFR 63.9633; 40 CFR 63.9634(a) & (d); 40 CFR 63.9636(a)(1) & (2); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652.

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	A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.546.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.546.6	Pressure Drop ≥ 0.5 and ≤ 8.0 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. The Permittee shall record the pressure drop at least once every 24 hours when in operation. [40 CFR 63.9631(a)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.546.7	The Permittee shall operate and maintain a bag leak detector at all times that the fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan. [Minn. R. 7007.0800, subp. (14), Minn. R. 7007.0800, subp. 2(A) & (B)]
5.546.8	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.546.9	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.546.10	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.546.11	Pressure Drop Daily Inspections and Recordkeeping: At least once each operating day, the Permittee must read and record the pressure drop across the cartridge filter. The Permittee must record the time and date of each pressure drop reading and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5]
5.546.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the alarm for the bag leak detector is triggered; or - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions must determine and correct the cause of the bag leak detector alarm, return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800,

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	subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.546.13	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.546.14	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.546.15	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.546.16	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.546.17	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time. The established Pressure Drop Range Limit shall be reset as follows: - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.546.18	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.546.19	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of

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	preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
TREA 264	Conveyor Transfer 003 Cartridge Filter
5.547.1	The Permittee is authorized to construct and operate TREA 264 per the specifications listed in Appendix L. The authorization to construct expires 5 years after issuance of Air Emissions Permit No. 13700005-101. The control shall meet all applicable permit requirements. [Minn. R. 7007.0800, subp. 2(A)]
5.547.2	After the startup and operation of TREA 264, the Permittee shall vent emissions from EQUI 288 and EQUI 289 to TREA 264 whenever EQUI 288 or EQUI 289 operates, and operate and maintain TREA 264 at all times that any emissions are vented to TREA 264. The Permittee shall document periods of non-operation of the control equipment TREA 264 whenever EQUI 288 or EQUI 289 is operating. Note: TREA 264 will replace TREA 63. Prior to the startup and operation of TREA 264, the Permittee shall follow the requirements for TREA 63. After the startup and operation of TREA 264, TREA 63 shall be shut down, and the Permittee shall follow requirements for TREA 264. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.547.3	If the Permittee replaces TREA 264, the replacement control must meet or exceed the control efficiency requirements of TREA 264 as well as comply with all other requirements of TREA 264. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.547.4	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (2); 40 CFR 63.9610(a); 40 CFR 63.9631(a) (bag leak detection system required); 40 CFR 63.9631(a)(1)-(6) & (8); 40 CFR 63.9632(a); 40 CFR 63.9633; 40 CFR 63.9634(a) & (d); 40 CFR 63.9636(a)(1) & (2); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R.

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	7007.1150-7007.1500, Minn. R. 7011.8030]
5.547.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.547.6	Pressure Drop ≥ 0.5 and ≤ 8.0 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. The Permittee shall record the pressure drop at least once every 24 hours when in operation. [40 CFR 63.9631(a)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.547.7	The Permittee shall operate and maintain a bag leak detector at all times that the fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan. [Minn. R. 7007.0800, subp. (14), Minn. R. 7007.0800, subp. 2(A) & (B)]
5.547.8	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.547.9	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.547.10	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.547.11	Pressure Drop Daily Inspections and Recordkeeping: At least once each operating day, the Permittee must read and record the pressure drop across the cartridge filter. The Permittee must record the time and date of each pressure drop reading and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5]
5.547.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the alarm for the bag leak detector is triggered; or - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions must determine and correct the cause of the bag leak detector alarm, return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.547.13	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.547.14	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800,

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	subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.547.15	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.547.16	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.547.17	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time. The established Pressure Drop Range Limit shall be reset as follows: - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.547.18	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.547.19	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
TREA 265	Conveyor Transfer 001-070 Bin Cartridge Filter
5.548.1	The Permittee is authorized to construct and operate TREA 265 per the specifications listed in Appendix L. The authorization to construct expires 5 years after issuance of Air Emissions Permit No. 13700005-

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	101. The control shall meet all applicable permit requirements. [Minn. R. 7007.0800, subp. 2(A)]
5.548.2	After the startup and operation of TREA 265, the Permittee shall vent emissions from EQUI 11 to TREA 265 whenever EQUI 11 operates, and operate and maintain TREA 265 at all times that any emissions are vented to TREA 265. The Permittee shall document periods of non-operation of the control equipment TREA 265 whenever EQUI 11 is operating. Note: TREA 265 will replace TREA 62. Prior to the startup and operation of TREA 265, the Permittee shall follow the requirements for TREA 62. After the startup and operation of TREA 265, TREA 62 shall be shut down, and the Permittee shall follow requirements for TREA 265. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.548.3	If the Permittee replaces TREA 265, the replacement control must meet or exceed the control efficiency requirements of TREA 265 as well as comply with all other requirements of TREA 265. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.548.4	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (2); 40 CFR 63.9610(a); 40 CFR 63.9631(a) (bag leak detection system required); 40 CFR 63.9631(a)(1)-(6) & (8); 40 CFR 63.9632(a); 40 CFR 63.9633; 40 CFR 63.9634(a) & (d); 40 CFR 63.9636(a)(1) & (2); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.548.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.548.6	Pressure Drop ≥ 0.5 and ≤ 8.0 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below.

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	If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. The Permittee shall record the pressure drop at least once every 24 hours when in operation. [40 CFR 63.9631(a)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.548.7	The Permittee shall operate and maintain a bag leak detector at all times that the fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan. [Minn. R. 7007.0800, subp. (14), Minn. R. 7007.0800, subp. 2(A) & (B)]
5.548.8	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron $\geq$ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.548.9	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron $\geq$ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.548.10	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.548.11	Pressure Drop Daily Inspections and Recordkeeping: At least once each operating day, the Permittee must read and record the pressure drop across the cartridge filter. The Permittee must record the time and date of each pressure drop reading and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5]
5.548.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the alarm for the bag leak detector is triggered; or - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions must determine and correct the cause of the bag leak detector alarm, return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.548.13	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.548.14	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.548.15	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.548.16	Semiannual inspections: At least once semiannually, or more frequently if required by the

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	manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.548.17	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time. The established Pressure Drop Range Limit shall be reset as follows: - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.548.18	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.548.19	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
TREA 266	Step I Basement Belts Cartridge Filter
5.549.1	The Permittee shall vent emissions from EQUI 7 and EQUI 343 to TREA 266 whenever EQUI 7 and EQUI 343 operates, and operate and maintain TREA 266 at all times that any emissions are vented to TREA 266. The Permittee shall document periods of non-operation of the control equipment TREA 266 whenever EQUI 7 or EQUI 343 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.549.2	If the Permittee replaces TREA 266, the replacement control must meet or exceed the control efficiency requirements of TREA 266 as well as comply with all other requirements of TREA 266. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to

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	the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.549.3	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (2); 40 CFR 63.9610(a); 40 CFR 63.9631(a) (bag leak detection system required); 40 CFR 63.9631(a)(1)-(6) & (8); 40 CFR 63.9632(a); 40 CFR 63.9633; 40 CFR 63.9634(a) & (d); 40 CFR 63.9636(a)(1) & (2); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.549.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.549.5	Pressure Drop ≥ 0.5 and ≤ 8.0 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. The Permittee shall record the pressure drop at least once every 24 hours when in operation. [40 CFR 63.9631(a)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.549.6	The Permittee shall operate and maintain a bag leak detector at all times that the fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan. [Minn. R. 7007.0800, subp. (14), Minn. R. 7007.0800, subp. 2(A) & (B)]
5.549.7	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.549.8	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]

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5.549.9	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.549.10	Pressure Drop Daily Inspections and Recordkeeping: At least once each operating day, the Permittee must read and record the pressure drop across the cartridge filter. The Permittee must record the time and date of each pressure drop reading and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5]
5.549.11	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the alarm for the bag leak detector is triggered; or - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions must determine and correct the cause of the bag leak detector alarm, return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.549.12	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.549.13	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.549.14	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.549.15	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.549.16	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time. The established Pressure Drop Range Limit shall be reset as follows:

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	- if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.549.17	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.549.18	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
TREA 267	Secondary Crusher L5 Cartridge Filter
5.550.1	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (2); 40 CFR 63.9610(a); 40 CFR 63.9631(a) (bag leak detection system required); 40 CFR 63.9631(a)(1)-(6) & (8); 40 CFR 63.9632(a); 40 CFR 63.9633; 40 CFR 63.9634(a) & (d); 40 CFR 63.9636(a)(1) & (2); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.550.2	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R.

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	7007.0800, subp. 2(A) & (B)]
5.550.3	Pressure Drop ≥ 0.5 and ≤ 8.0 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. The Permittee shall record the pressure drop at least once every 24 hours when in operation. [40 CFR 63.9631(a)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.550.4	The Permittee shall operate and maintain a bag leak detector at all times that the fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan. [Minn. R. 7007.0800, subp. (14), Minn. R. 7007.0800, subp. 2(A) & (B)]
5.550.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.550.6	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.550.7	The Permittee shall vent emissions from EQUI 283 to TREA 267 whenever EQUI 283 operates, and operate and maintain TREA 267 at all times that any emissions are vented to TREA 267. The Permittee shall document periods of non-operation of the control equipment TREA 267 whenever EQUI 283 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.550.8	If the Permittee replaces TREA 267, the replacement control must meet or exceed the control efficiency requirements of TREA 267 as well as comply with all other requirements of TREA 267. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.550.9	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.550.10	Pressure Drop Daily Inspections and Recordkeeping: At least once each operating day, the Permittee must read and record the pressure drop across the cartridge filter. The Permittee must record the time and date of each pressure drop reading and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5]
5.550.11	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the alarm for the bag leak detector is triggered; or - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions must determine and correct the cause of the bag leak detector alarm, return the pressure drop to within the permitted range, and/or include completion of necessary repairs

Requirement number	Requirement and citation
	identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.550.12	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.550.13	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.550.14	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.550.15	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.550.16	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time. The established Pressure Drop Range Limit shall be reset as follows: - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.550.17	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]

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5.550.18	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]
TREA 269	Step III Tertiary Storage 006-080 Bins Cartridge Filter
5.551.1	The Permittee is authorized to construct and operate TREA 269 per the specifications listed in Appendix L. The authorization to construct expires 5 years after issuance of Air Emissions Permit No. 13700005-101. The control shall meet all applicable permit requirements. [Minn. R. 7007.0800, subp. 2(A)]
5.551.2	After the startup and operation of TREA 269, the Permittee shall vent emissions from EQUI 13, EQUI 14, EQUI 15, EQUI 291, EQUI 292, EQUI 293, and EQUI 296 and to TREA 269 whenever EQUI 13, EQUI 14, EQUI 15, EQUI 291, EQUI 292, EQUI 293, and EQUI 296 operates, and operate and maintain TREA 269 at all times that any emissions are vented to TREA 269. The Permittee shall document periods of non-operation of the control equipment TREA 269 whenever EQUI 13, EQUI 14, EQUI 15, EQUI 291, EQUI 292, EQUI 293, or EQUI 296 is operating. Note: TREA 269 will replace TREA 65. Prior to the startup and operation of TREA 269, the Permittee shall follow the requirements for TREA 65. After the startup and operation of TREA 269, TREA 65 shall be shut down, and the Permittee shall follow requirements for TREA 269. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.551.3	If the Permittee replaces TREA 269, the replacement control must meet or exceed the control efficiency requirements of TREA 269 as well as comply with all other requirements of TREA 269. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. If no amendment is needed for the replacement, the Permittee shall submit an electronic notice to the Agency using Form CR-05. The notice must be received by the Agency seven working days prior to the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.551.4	The Permittee must comply with all applicable requirements of 40 CFR pt. 63, subp. RRRRR, as follows: 40 CFR 63.9600(a) & (b); 40 CFR 63.9600(b)(1) & (2); 40 CFR 63.9610(a); 40 CFR 63.9631(a) (bag leak detection system required); 40 CFR 63.9631(a)(1)-(6) & (8); 40 CFR 63.9632(a); 40 CFR 63.9633; 40 CFR 63.9634(a) & (d); 40 CFR 63.9636(a)(1) & (2); 40 CFR 63.9636(b); 40 CFR 63.9637; 40 CFR 63.9642(a) & (c); 40 CFR 63.9643; and 40 CFR 63.9652. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J.

Requirement number	Requirement and citation
	If the standard changes or upon adoption of a new or amended federal applicable requirement, and if there are more than three years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150-7007.1500, Minn. R. 7011.8030]
5.551.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter ≥ 99.4 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.551.6	Pressure Drop ≥ 0.5 and ≤ 8.0 inches of water (Pressure Drop Range Limit), unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, as detailed below. If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. The Permittee shall record the pressure drop at least once every 24 hours when in operation. [40 CFR 63.9631(a)(1), Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7011.8030, Minn. R. 7017.2025]
5.551.7	The Permittee shall operate and maintain a bag leak detector at all times that the fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan. [Minn. R. 7007.0800, subp. (14), Minn. R. 7007.0800, subp. 2(A) & (B)]
5.551.8	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 10 micron ≥ 99.3 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.551.9	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron ≥ 99.0 percent control efficiency. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
5.551.10	The Permittee shall operate and maintain the fabric filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]
5.551.11	Pressure Drop Daily Inspections and Recordkeeping: At least once each operating day, the Permittee must read and record the pressure drop across the cartridge filter. The Permittee must record the time and date of each pressure drop reading and whether or not the observed pressure drop was within the range specified in this permit. Recorded values outside the range specified in this permit are considered Deviations as defined by Minn. R. 7007.0100, subp. 8a. [Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7007.0800, subps. 4-5]
5.551.12	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the alarm for the bag leak detector is triggered; or - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions must determine and correct the cause of the bag leak detector alarm, return the pressure drop to within the permitted range, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.551.13	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment

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	for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
5.551.14	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.551.15	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee must inspect the external components of the fabric filter. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.551.16	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the internal components of the fabric filter not covered by quarterly external inspections. The Permittee must maintain a written record of the inspection and any corrective actions taken resulting from the inspection. Each inspection must be separated by at least 4 months but no more than 8 months. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subps. 4-5]
5.551.17	Protocol for Resetting the Pressure Drop Range Limit: The Permittee shall conduct performance testing to measure the PM emission rate as required elsewhere in this permit. If the established Pressure Drop Range Limit is to be reset, the reset shall be based on the pressure drop values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. During the performance test, the Permittee must continuously monitor the pressure drop. The Permittee must calculate the average pressure drop based on the average exhibited over all three compliant test runs. Downtime of 15 minutes or more is not to be included as operating time. The established Pressure Drop Range Limit shall be reset as follows: - if the 3-hour average pressure drop recorded during the test is within the established range, it shall not be reset and the established values remain the Pressure Drop Range Limit; or - if the 3-hour average pressure drop is above the maximum value of the established range, the new maximum value shall be reset as the average pressure drop from the test plus 10%. The minimum value shall be increased by the same amount to maintain the pressure drop range. The pressure drop range is equal to the maximum value (upper bound) minus the minimum value (lower bound). Ongoing compliance with the Pressure Drop Range Limit will be determined using the same data acquisition and reduction as was used during the performance test. The new Pressure Drop Range Limit shall be effective upon receipt of the Notice of Compliance letter that approves the test results and shall be incorporated into the permit when the permit is next amended. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B), Minn. R. 7017.2025]
5.551.18	The Permittee must apply for and obtain a major permit amendment if the Permittee wishes to deviate from the Protocol for Re-setting the Pressure Drop Range Limit required by this permit. [Minn. R. 7007.1500, subp. 1]
5.551.19	Notwithstanding the Protocol detailed above, the MPCA reserves the right to set operational limits and requirements as allowed under Minn. R. 7017.2025. If the MPCA sets limits, the new limits shall be implemented upon receipt of the Notice of Compliance letter that notifies the Permittee of preliminary approval. The limits set according to Minn. R. 7017.2025 are final upon issuance of a permit amendment incorporating the change. [Minn. R. 7017.2025]

6. Submittal/action requirements

This section lists most of the submittals required by this permit. Please note that some submittal requirements may appear in the Limits and Other Requirements section, or, if applicable, within a Compliance Schedule section.

Requirement number	Requirement and citation
TFAC 2	US Steel Corp - MinnTac
6.1.1	The Permittee must submit a semiannual deviations report : Due semiannually, by the 30th of January and July. The first semiannual report submitted by the Permittee must cover the calendar half-year in which the permit is issued. The first report of each calendar year covers January 1 - June 30. The second report of each calendar year covers July 1 - December 31. Submit this on form DRF-2 (Deviation Reporting Form). If no deviations have occurred, submit the signed report certifying that there were no deviations. [Minn. R. 7007.0800, subp. 6(B)(2)]
6.1.2	The Permittee must submit a compliance schedule progress report : Due semiannually, by the 30th of January and July. The Compliance Schedule Progress Report must contain the information specified in Minn. R. 7007.0800, subp. 6(C) and must be submitted on a form approved by the Commissioner in accordance with the Compliance Schedule contained in this permit. Progress Reports will not be needed upon completion of all activities contained in the Compliance Schedule. [Minn. R. 7007.0800, subp. 6(C)]
6.1.3	The Permittee must submit a compliance certification : Due annually, by the 31st of January (for the previous calendar year). Submit this on form CR-04 (Annual Compliance Certification Report). This report covers all deviations experienced during the calendar year. If no deviations have occurred, submit the signed report certifying that there were no deviations. [Minn. R. 7007.0800, subp. 6(D)]
6.1.4	The Permittee shall submit an application for permit reissuance : Due 180 calendar days before Permit Expiration Date. [Minn. R. 7007.0400, subp. 2]
6.1.5	The Permittee must submit a notification of reclassification: Due within 15 calendar days after permit issuance. Submit the name and address of the Permittee, the address of the affected source, an identification of the major source and area source standards being reclassified from and to, respectively, and date of effectiveness of the reclassification. The notification must be submitted electronically to Compliance and Emissions Data Reporting Interface (CEDRI) via https://cdx.epa.gov/ . [40 CFR 63.12(c), 40 CFR 63.9(b)(1)(ii), 40 CFR 63.9(j) and (k)]
6.1.6	The Permittee shall submit excess emission/downtime report : Due by 30 days after the end of each calendar quarter following permit issuance. Submit this on form DRF-1 (Excess Emissions Reporting) as amended. The EER shall indicate all periods of monitor bypass and exceedances of the limit including those allowed by an applicable standard, i.e. during startup, shutdown, and malfunctions, as well as a summary of audit results and frequencies. If no excess emissions, downtime or bypasses occurred during the quarter, submit a signed report supplying the necessary monitor data needed to verify this. [Minn. R. 7017.1110, subp. 1-2]
6.1.7	NAAQS Compliance Demonstration: The Permittee must submit a Plan for demonstrating compliance with the 1-hr SO ₂ , 1-hour NO ₂ , annual NO ₂ , 24-hour PM ₁₀ , 24-hour PM _{2.5} , and annual PM _{2.5} National Primary and Secondary Ambient Air Quality Standards (NAAQS) within 90 days after permit issuance. The Plan must identify the steps the Permittee will take to demonstrate compliance with the NAAQS and must include a schedule of when each step will be complete. The schedule must be designed to complete the NAAQS compliance demonstration within 1461 days after permit issuance. The Agency will notify the Permittee of requested changes to the Plan or approval of the Plan within 60 days of receipt. If the Agency requests changes to the Plan, the Permittee must submit a revised Plan within 60 days of the Agency's request. This cycle of Agency request and Permittee Plan

Requirement number	Requirement and citation
	submittal shall repeat until the Agency approves a Plan. The Permittee must submit an Agency-approvable Plan within 730 days after permit issuance. Upon Agency approval of the Plan, the Permittee must comply with the schedule to demonstrate compliance with the NAAQS. If the Permittee fails to submit a Plan approved by the Agency within 730 days after permit issuance, the Permittee must submit a NAAQS compliance modeling protocol within 940 days after permit issuance for the 1-hr SO₂, 1-hour NO₂, 24-hour PM₁₀, 24-hour PM_{2.5}, and annual PM_{2.5} National Primary and Secondary Ambient Air Quality Standards following the process described in the most recent MPCA Air Quality Dispersion Modeling Practices Manual. The Permittee must send submittals to the AQPS Manager. [Minn. R. 7007.0800, subp. 2(A) and (B), Minn. R. 7009.0020-7007.0090, Minn. Stat. 116.07, subd. 4a(a)]
COMG 42	Taconite MACT Testing Group: Step I and II Coarse Crushers - Scrubbers
6.2.1	Filterable Particulate Matter: The Permittee must conduct a performance test due before 180 days after permit issuance and every 60 months thereafter to measure emissions from the members of one stack in COMG 42. The Permittee must conduct recurring performance tests on one stack and must conduct future performance tests on a stack that the Permittee has not yet tested. After the Permittee has conducted performance tests on all stacks, the Permittee must conduct a performance test on the stack for which testing is least current. The stacks and associated emission units subject to testing in COMG 42 are: STRU 152 venting EQUI 47, and EQUI 203 STRU 153 venting EQUI 72 and EQUI 73 The first test is due by the date specified above and all subsequent tests must be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test must be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5, 5D, 17, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. NESHAP RRRRR: Each Method 5, 5D, or 17 performance test must consist of three separate runs. Each run must be conducted for a minimum of 1 hour. The average particulate matter concentration from the three runs will be used to determine compliance, as shown in Equation 1 of 40 CFR 63.9621. The Permittee must use the results of this performance test to determine the flow-weighted mean concentration of filterable particulate matter emissions following the procedures in 40 CFR 63.9621(b)(3). [40 CFR 63.7, 40 CFR 63.9630(a), 40 CFR 63.9634(b), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A), Minn. R. 7017.2020, subp. 1]
6.2.2	Filterable Particulate Matter: The Permittee must submit a performance test notification: Due 60 calendar days before the performance test required by 40 CFR pt. 63, subp. RRRRR is scheduled to begin. [40 CFR 63.7(b), 40 CFR 63.9640(d), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A)]
6.2.3	Filterable Particulate Matter: The Permittee must submit the performance test results: Due 60 days after the completion of each performance test required by 40 CFR pt. 63, subp. RRRRR, following the procedures specified in 40 CFR 63.9641(f)(1) through (3). [40 CFR 63.9641(f), Minn. R. 7011.8030]
COMG 45	Taconite MACT Testing Group: Step I and II Conveyors Group 2 - Scrubber

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6.3.1	Filterable Particulate Matter: The Permittee must conduct a performance test due 4/23/2030 and every 60 months thereafter to measure emissions from one stack venting members of COMG 45. The Permittee must conduct recurring performance tests on one stack and must conduct future performance tests on a stack that the Permittee has not yet tested. After the Permittee has conducted performance tests on all stacks, the Permittee must conduct a performance test on the stack for which testing is least current. The stacks and associated emission units subject to testing in COMG 45 are: STRU 180 venting EQUI 6, EQUI 342 STRU 195 venting EQUI 208, EQUI 374 STRU 210 venting EQUI 206, EQUI 207 STRU 215 venting EQUI 51 STRU 218 venting EQUI 325 STRU 237 venting EQUI 392 At the time of a wet scrubber replacement to a dry cartridge filter at a stack as authorized by this permit, the associated stack and vented emission units will no longer be subject to COMG 45 testing requirements and will instead be subject to testing requirements at COMG 46. The first test is due by the date specified above and all subsequent tests must be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test must be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5, 5D, 17, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. NESHAP RRRRR: Each Method 5, 5D, or 17 performance test must consist of three separate runs. Each run must be conducted for a minimum of 1 hour. The average particulate matter concentration from the three runs will be used to determine compliance, as shown in Equation 1 of 40 CFR 63.9621. The Permittee must use the results of this performance test to determine the flow-weighted mean concentration of filterable particulate matter emissions following the procedures in 40 CFR 63.9621(b)(3). [40 CFR 63.7, 40 CFR 63.9630(a), 40 CFR 63.9634(b), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A), Minn. R. 7017.2020, subp. 1]
6.3.2	Filterable Particulate Matter: The Permittee must submit a performance test notification: Due 60 calendar days before the performance test required by 40 CFR pt. 63, subp. RRRRR is scheduled to begin. [40 CFR 63.7(b), 40 CFR 63.9640(d), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A)]
6.3.3	Filterable Particulate Matter: The Permittee must submit the performance test results: Due 60 days after the completion of each performance test required by 40 CFR pt. 63, subp. RRRRR, following the procedures specified in 40 CFR 63.9641(f)(1) through (3). [40 CFR 63.9641(f), Minn. R. 7011.8030]
COMG 46	Taconite MACT Testing Group: Step I and II Conveyors Group 2 - Cartridge Filters
6.4.1	Filterable Particulate Matter: The Permittee must conduct a performance test due 30 days after startup of each replacement cartridge filter controlling emissions from any member of COMG 46, and every 60 months thereafter to measure emissions from one stack venting members of COMG 46. The Permittee must conduct recurring performance tests on one stack and must conduct future

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	performance tests on a stack that the Permittee has not yet tested. After the Permittee has conducted performance tests on all stacks, the Permittee must conduct a performance test on the stack for which testing is least current. The stacks and associated units subject to testing in COMG 46 are: STRU 180 venting EQUI 6, EQUI 7. EQUI 342, EQUI 343 STRU 195 venting EQUI 208, EQUI 374 STRU 210 venting EQUI 206, EQUI 207 STRU 215 venting EQUI 51 STRU 218 venting EQUI 325 STRU 237 venting EQUI 392 The first test is due by the date specified above and all subsequent tests must be completed every 60 months thereafter by the due date (month and day) as described below. The performance test must be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5, 5D, 17, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. NESHAP RRRRR: Each Method 5, 5D, or 17 performance test must consist of three separate runs. Each run must be conducted for a minimum of 1 hour. The average particulate matter concentration from the three runs will be used to determine compliance, as shown in Equation 1 of 40 CFR 63.9621. The Permittee must use the results of this performance test to determine the flow-weighted mean concentration of filterable particulate matter emissions following the procedures in 40 CFR 63.9621(b)(3). [40 CFR 63.7, 40 CFR 63.9630(a), 40 CFR 63.9634(b), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A), Minn. R. 7017.2020, subp. 1]
6.4.2	Filterable Particulate Matter: The Permittee must submit a performance test notification: Due 60 calendar days before the performance test required by 40 CFR pt. 63, subp. RRRRR is scheduled to begin. [40 CFR 63.7(b), 40 CFR 63.9640(d), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A)]
6.4.3	Filterable Particulate Matter: The Permittee must submit the performance test results: Due 60 days after the completion of each performance test required by 40 CFR pt. 63, subp. RRRRR, following the procedures specified in 40 CFR 63.9641(f)(1) through (3). [40 CFR 63.9641(f), Minn. R. 7011.8030]
COMG 47	Taconite MACT Testing Group: Step I and II Conveyors Group 3 - Cartridge Filters
6.5.1	Filterable Particulate Matter: The Permittee must conduct a performance test due before 4/10/2028 issuance and every 60 months thereafter to measure emissions from the members of one stack in COMG 47. The Permittee must conduct recurring performance tests on one stack and must conduct future performance tests on a stack that the Permittee has not yet tested. After the Permittee has conducted performance tests on all stacks, the Permittee must conduct a performance test on the stack for which testing is least current. The stacks and associated emission units subject to testing in COMG 47 are: STRU 97 venting EQUI 330, EQUI 384, EQUI 383

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	STRU 98 venting EQUI 385, EQUI 331, EQUI 332, EQUI 333 STRU 179 venting EQUI 53 STRU 196 venting EQUI 319, EQUI 320, EQUI 77, EQUI 78 STRU 214 venting EQUI 318, EQUI 377 STRU 219 venting EQUI 52 The first test is due by the date specified above and all subsequent tests must be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test must be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5, 5D, 17, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. NESHAP RRRRR: Each Method 5, 5D, or 17 performance test must consist of three separate runs. Each run must be conducted for a minimum of 1 hour. The average particulate matter concentration from the three runs will be used to determine compliance, as shown in Equation 1 of 40 CFR 63.9621. The Permittee must use the results of this performance test to determine the flow-weighted mean concentration of filterable particulate matter emissions following the procedures in 40 CFR 63.9621(b)(3). [40 CFR 63.7, 40 CFR 63.9630(a), 40 CFR 63.9634(b), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A), Minn. R. 7017.2020, subp. 1]
6.5.2	Filterable Particulate Matter: The Permittee must submit a performance test notification: Due 60 calendar days before the performance test required by 40 CFR pt. 63, subp. RRRRR is scheduled to begin. [40 CFR 63.7(b), 40 CFR 63.9640(d), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A)]
6.5.3	Filterable Particulate Matter: The Permittee must submit the performance test results: Due 60 days after the completion of each performance test required by 40 CFR pt. 63, subp. RRRRR, following the procedures specified in 40 CFR 63.9641(f)(1) through (3). [40 CFR 63.9641(f), Minn. R. 7011.8030]
COMG 48	Taconite MACT Testing Group: Secondary Crushers L1-L5 - Cartridge Filters
6.6.1	Filterable Particulate Matter: The Permittee must conduct a performance test due before 9/25/2030 and every 60 months thereafter to measure emissions from the members of one stack in COMG 48. The Permittee must conduct recurring performance tests on one stack and must conduct future performance tests on a stack that the Permittee has not yet tested. After the Permittee has conducted performance tests on all stacks, the Permittee must conduct a performance test on the stack for which testing is least current. The stacks and associated emission units subject to testing in COMG 48 are: STRU 93 venting EQUI 327 STRU 94 venting EQUI 328 STRU 95 venting EQUI 382 STRU 96 venting EQUI 329 STRU 238 venting EQUI 283 The first test is due by the date specified above and all subsequent tests must be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test

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	must be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5, 5D, 17, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. NESHAP RRRRR: Each Method 5, 5D, or 17 performance test must consist of three separate runs. Each run must be conducted for a minimum of 1 hour. The average particulate matter concentration from the three runs will be used to determine compliance, as shown in Equation 1 of 40 CFR 63.9621. The Permittee must use the results of this performance test to determine the flow-weighted mean concentration of filterable particulate matter emissions following the procedures in 40 CFR 63.9621(b)(3). [40 CFR 63.7, 40 CFR 63.9630(a), 40 CFR 63.9634(b), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A), Minn. R. 7017.2020, subp. 1]
6.6.2	Filterable Particulate Matter: The Permittee must submit a performance test notification: Due 60 calendar days before the performance test required by 40 CFR pt. 63, subp. RRRRR is scheduled to begin. [40 CFR 63.7(b), 40 CFR 63.9640(d), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A)]
6.6.3	Filterable Particulate Matter: The Permittee must submit the performance test results: Due 60 days after the completion of each performance test required by 40 CFR pt. 63, subp. RRRRR, following the procedures specified in 40 CFR 63.9641(f)(1) through (3). [40 CFR 63.9641(f), Minn. R. 7011.8030]
COMG 49	Taconite MACT Testing Group: Secondary Crushers L6-L10 - Scrubbers
6.7.1	Filterable Particulate Matter: The Permittee must conduct a performance test due before 11/13/2028 and every 60 months thereafter to measure emissions from one stack venting members of COMG 49. The Permittee must conduct recurring performance tests on one stack and must conduct future performance tests on a stack that the Permittee has not yet tested. After the Permittee has conducted performance tests on all stacks, the Permittee must conduct a performance test on the stack for which testing is least current. The stacks and associated emission units subject to testing in COMG 49 are: STRU 178 venting EQUI 341 STRU 223 venting EQUI 339 STRU 234 venting EQUI 390 STRU 235 venting EQUI 340 STRU 236 venting EQUI 5 At the time of a wet scrubber replacement to a dry cartridge filter at a stack as authorized by this permit, the associated stack and vented emission units will no longer be subject to COMG 49 testing requirements and will instead be subject to testing requirements at COMG 50. The first test is due by the date specified above and all subsequent tests must be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test must be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5, 5D, 17, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test

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	due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. NESHAP RRRRR: Each Method 5, 5D, or 17 performance test must consist of three separate runs. Each run must be conducted for a minimum of 1 hour. The average particulate matter concentration from the three runs will be used to determine compliance, as shown in Equation 1 of 40 CFR 63.9621. The Permittee must use the results of this performance test to determine the flow-weighted mean concentration of filterable particulate matter emissions following the procedures in 40 CFR 63.9621(b)(3). [40 CFR 63.7, 40 CFR 63.9630(a), 40 CFR 63.9634(b), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A), Minn. R. 7017.2020, subp. 1]
6.7.2	Filterable Particulate Matter: The Permittee must submit a performance test notification: Due 60 calendar days before the performance test required by 40 CFR pt. 63, subp. RRRRR is scheduled to begin. [40 CFR 63.7(b), 40 CFR 63.9640(d), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A)]
6.7.3	Filterable Particulate Matter: The Permittee must submit the performance test results: Due 60 days after the completion of each performance test required by 40 CFR pt. 63, subp. RRRRR, following the procedures specified in 40 CFR 63.9641(f)(1) through (3). [40 CFR 63.9641(f), Minn. R. 7011.8030]
COMG 50	Taconite MACT Testing Group: Secondary Crushers L6-L10 - Cartridge Filters
6.8.1	Filterable Particulate Matter: The Permittee must conduct a performance test due 30 days after startup of each replacement cartridge filter controlling emissions from any member of COMG 50, and every 60 months thereafter to measure emissions from one stack venting members of COMG 50. The Permittee must conduct recurring performance tests on one stack and must conduct future performance tests on a stack that the Permittee has not yet tested. After the Permittee has conducted performance tests on all stacks, the Permittee must conduct a performance test on the stack for which testing is least current. The stacks and associated units subject to testing in COMG 50 are: STRU 178 venting EQUI 341 STRU 223 venting EQUI 339 STRU 234 venting EQUI 390 STRU 235 venting EQUI 340 STRU 236 venting EQUI 5 The first test is due by the date specified above and all subsequent tests must be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test must be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5, 5D, 17, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. NESHAP RRRRR: Each Method 5, 5D, or 17 performance test must consist of three separate runs. Each run must be conducted for a minimum of 1 hour. The average particulate matter concentration from

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	the three runs will be used to determine compliance, as shown in Equation 1 of 40 CFR 63.9621. The Permittee must use the results of this performance test to determine the flow-weighted mean concentration of filterable particulate matter emissions following the procedures in 40 CFR 63.9621(b)(3). [40 CFR 63.7, 40 CFR 63.9630(a), 40 CFR 63.9634(b), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A), Minn. R. 7017.2020, subp. 1]
6.8.2	Filterable Particulate Matter: The Permittee must submit a performance test notification: Due 60 calendar days before the performance test required by 40 CFR pt. 63, subp. RRRRR is scheduled to begin. [40 CFR 63.7(b), 40 CFR 63.9640(d), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A)]
6.8.3	Filterable Particulate Matter: The Permittee must submit the performance test results: Due 60 days after the completion of each performance test required by 40 CFR pt. 63, subp. RRRRR, following the procedures specified in 40 CFR 63.9641(f)(1) through (3). [40 CFR 63.9641(f), Minn. R. 7011.8030]
COMG 51	Taconite MACT Testing Group: Tertiary Crushers L1-L6 - Cartridge Filters
6.9.1	Filterable Particulate Matter: The Permittee must conduct a performance test due before 9/25/2030 and every 60 months thereafter to measure emissions from the members of one stack in COMG 51. The Permittee must conduct recurring performance tests on one stack and must conduct future performance tests on a stack that the Permittee has not yet tested. After the Permittee has conducted performance tests on all stacks, the Permittee must conduct a performance test on the stack for which testing is least current. The stacks and associated emission units subject to testing in COMG 51 are: STRU 100 venting EQUI 335, EQUI 386 STRU 101 venting EQUI 388 STRU 102 venting EQUI 336 STRU 103 venting EQUI 337 STRU 104 venting EQUI 33 STRU 222 venting EQUI 389 The first test is due by the date specified above and all subsequent tests must be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test must be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5, 5D, 17, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. NESHAP RRRRR: Each Method 5, 5D, or 17 performance test must consist of three separate runs. Each run must be conducted for a minimum of 1 hour. The average particulate matter concentration from the three runs will be used to determine compliance, as shown in Equation 1 of 40 CFR 63.9621. The Permittee must use the results of this performance test to determine the flow-weighted mean concentration of filterable particulate matter emissions following the procedures in 40 CFR 63.9621(b)(3). [40 CFR 63.7, 40 CFR 63.9630(a), 40 CFR 63.9634(b), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A), Minn. R. 7017.2020, subp. 1]
6.9.2	Filterable Particulate Matter: The Permittee must submit a performance test notification: Due 60 calendar days before the performance test required by 40 CFR pt. 63, subp. RRRRR is scheduled to

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	begin. [40 CFR 63.7(b), 40 CFR 63.9640(d), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A)]
6.9.3	Filterable Particulate Matter: The Permittee must submit the performance test results: Due 60 days after the completion of each performance test required by 40 CFR pt. 63, subp. RRRRR, following the procedures specified in 40 CFR 63.9641(f)(1) through (3). [40 CFR 63.9641(f), Minn. R. 7011.8030]
COMG 52	Taconite MACT Testing Group: Tertiary Crushers L7-L12 - Cartridge Filters
6.10.1	Filterable Particulate Matter: Filterable Particulate Matter: The Permittee must conduct a performance test due before 9/25/2030 and every 60 months thereafter to measure emissions from the members of one stack in COMG 52. The Permittee must conduct recurring performance tests on one stack and must conduct future performance tests on a stack that the Permittee has not yet tested. After the Permittee has conducted performance tests on all stacks, the Permittee must conduct a performance test on the stack for which testing is least current. The stacks and associated emission units subject to testing in COMG 52 are: STRU 105 venting EQUI 55 STRU 106 venting EQUI 56 STRU 107 venting EQUI 57, EQUI 66 STRU 108 venting EQUI 58 STRU 109 venting EQUI 59, EQUI 67 STRU 110 venting EQUI 60 The first test is due by the date specified above and all subsequent tests must be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test must be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5, 5D, 17, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. NESHAP RRRRR: Each Method 5, 5D, or 17 performance test must consist of three separate runs. Each run must be conducted for a minimum of 1 hour. The average particulate matter concentration from the three runs will be used to determine compliance, as shown in Equation 1 of 40 CFR 63.9621. The Permittee must use the results of this performance test to determine the flow-weighted mean concentration of filterable particulate matter emissions following the procedures in 40 CFR 63.9621(b)(3). [40 CFR 63.7, 40 CFR 63.9630(a), 40 CFR 63.9634(b), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A), Minn. R. 7017.2020, subp. 1]
6.10.2	Filterable Particulate Matter: The Permittee must submit a performance test notification: Due 60 calendar days before the performance test required by 40 CFR pt. 63, subp. RRRRR is scheduled to begin. [40 CFR 63.7(b), 40 CFR 63.9640(d), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A)]
6.10.3	Filterable Particulate Matter: The Permittee must submit the performance test results: Due 60 days after the completion of each performance test required by 40 CFR pt. 63, subp. RRRRR, following the procedures specified in 40 CFR 63.9641(f)(1) through (3). [40 CFR 63.9641(f), Minn. R. 7011.8030]
COMG 53	Taconite MACT Testing Group: Tertiary Crushers L13-L16 - Cartridge Filters
6.11.1	Filterable Particulate Matter: The Permittee must conduct a performance test due before 180 days after permit issuance and every 60 months thereafter to measure emissions from the members of one

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	stack in COMG 53. The Permittee must conduct recurring performance tests on one stack and must conduct future performance tests on a stack that the Permittee has not yet tested. After the Permittee has conducted performance tests on all stacks, the Permittee must conduct a performance test on the stack for which testing is least current. The stacks and associated emission units subject to testing in COMG 53 are: STRU 111 venting EQUI 61, EQUI 68 STRU 112 venting EQUI 62 STRU 231 venting EQUI 63, EQUI 65 STRU 232 venting EQUI 64 The first test is due by the date specified above and all subsequent tests must be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test must be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5, 5D, 17, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. NESHAP RRRRR: Each Method 5, 5D, or 17 performance test must consist of three separate runs. Each run must be conducted for a minimum of 1 hour. The average particulate matter concentration from the three runs will be used to determine compliance, as shown in Equation 1 of 40 CFR 63.9621. The Permittee must use the results of this performance test to determine the flow-weighted mean concentration of filterable particulate matter emissions following the procedures in 40 CFR 63.9621(b)(3). [40 CFR 63.7, 40 CFR 63.9630(a), 40 CFR 63.9634(b), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A), Minn. R. 7017.2020, subp. 1]
6.11.2	Filterable Particulate Matter: The Permittee must submit a performance test notification: Due 60 calendar days before the performance test required by 40 CFR pt. 63, subp. RRRRR is scheduled to begin. [40 CFR 63.7(b), 40 CFR 63.9640(d), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A)]
6.11.3	Filterable Particulate Matter: The Permittee must submit the performance test results: Due 60 days after the completion of each performance test required by 40 CFR pt. 63, subp. RRRRR, following the procedures specified in 40 CFR 63.9641(f)(1) through (3). [40 CFR 63.9641(f), Minn. R. 7011.8030]
COMG 54	Taconite MACT Testing Group: Step I and II Conveyors Group 4 - Cartridge Filters
6.12.1	Filterable Particulate Matter: The Permittee must conduct a performance test due before 12/12/2028 and every 60 months thereafter to measure emissions from the members of one stack in COMG 54. The Permittee must conduct recurring performance tests on one stack and must conduct future performance tests on a stack that the Permittee has not yet tested. After the Permittee has conducted performance tests on all stacks, the Permittee must conduct a performance test on the stack for which testing is least current. The stacks and associated emission units subject to testing in COMG 54 are: STRU 92 venting EQUI 326, EQUI 381 STRU 251 venting EQUI 313, EQUI 314, EQUI 393, EQUI 394

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	The first test is due by the date specified above and all subsequent tests must be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test must be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5, 5D, 17, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. NESHAP RRRRR: Each Method 5, 5D, or 17 performance test must consist of three separate runs. Each run must be conducted for a minimum of 1 hour. The average particulate matter concentration from the three runs will be used to determine compliance, as shown in Equation 1 of 40 CFR 63.9621. The Permittee must use the results of this performance test to determine the flow-weighted mean concentration of filterable particulate matter emissions following the procedures in 40 CFR 63.9621(b)(3). [40 CFR 63.7, 40 CFR 63.9630(a), 40 CFR 63.9634(b), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A), Minn. R. 7017.2020, subp. 1]
6.12.2	Filterable Particulate Matter: The Permittee must submit a performance test notification: Due 60 calendar days before the performance test required by 40 CFR pt. 63, subp. RRRRR is scheduled to begin. [40 CFR 63.7(b), 40 CFR 63.9640(d), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A)]
6.12.3	Filterable Particulate Matter: The Permittee must submit the performance test results: Due 60 days after the completion of each performance test required by 40 CFR pt. 63, subp. RRRRR, following the procedures specified in 40 CFR 63.9641(f)(1) through (3). [40 CFR 63.9641(f), Minn. R. 7011.8030]
COMG 55	Taconite MACT Testing Group: Step I and II Storage Bins - Scrubbers
6.13.1	Filterable Particulate Matter: The Permittee must conduct a performance test due before 9/25/2030 and every 60 months thereafter to measure emissions from the members of one stack in COMG 55. The Permittee must conduct recurring performance tests on one stack and must conduct future performance tests on a stack that the Permittee has not yet tested. After the Permittee has conducted performance tests on all stacks, the Permittee must conduct a performance test on the stack for which testing is least current. The stacks and associated emission units subject to testing in COMG 55 are: STRU 114 venting EQUI 19, EQUI 216, EQUI 217, EQUI 218, EQUI 219, EQUI 220, EQUI 221 STRU 115 venting EQUI 23, EQUI 24, EQUI 226, EQUI 227, EQUI 228, EQUI 229, EQUI 230 STRU 116 venting EQUI 231, EQUI 232, EQUI 233, EQUI 234, EQUI 25, EQUI 26, EQUI 170 STRU 192 venting EQUI 209, EQUI 210, EQUI 211, EQUI 212, EQUI 213, EQUI 214, EQUI 215 STRU 193 venting EQUI 20, EQUI 21, EQUI 22, EQUI 222, EQUI 223, EQUI 224, EQUI 225 STRU 197 venting EQUI 171, EQUI 172, EQUI 235, EQUI 236, EQUI 237, EQUI 238, EQUI 239 The first test is due by the date specified above and all subsequent tests must be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test must be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5, 5D, 17, or other method approved by MPCA in the performance test plan approval.

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	Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. NESHAP RRRRR: Each Method 5, 5D, or 17 performance test must consist of three separate runs. Each run must be conducted for a minimum of 1 hour. The average particulate matter concentration from the three runs will be used to determine compliance, as shown in Equation 1 of 40 CFR 63.9621. The Permittee must use the results of this performance test to determine the flow-weighted mean concentration of filterable particulate matter emissions following the procedures in 40 CFR 63.9621(b)(3). [40 CFR 63.7, 40 CFR 63.9630(a), 40 CFR 63.9634(b), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A), Minn. R. 7017.2020, subp. 1]
6.13.2	Filterable Particulate Matter: The Permittee must submit a performance test notification: Due 60 calendar days before the performance test required by 40 CFR pt. 63, subp. RRRRR is scheduled to begin. [40 CFR 63.7(b), 40 CFR 63.9640(d), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A)]
6.13.3	Filterable Particulate Matter: The Permittee must submit the performance test results: Due 60 days after the completion of each performance test required by 40 CFR pt. 63, subp. RRRRR, following the procedures specified in 40 CFR 63.9641(f)(1) through (3). [40 CFR 63.9641(f), Minn. R. 7011.8030]
COMG 56	Taconite MACT Testing Group: Step III Pan feeders - Scrubbers
6.14.1	Filterable Particulate Matter: The Permittee must conduct a performance test due before 4/21/2030 and every 60 months thereafter to measure emissions from one stack venting members of COMG 56. The Permittee must conduct recurring performance tests on one stack and must conduct future performance tests on a stack that the Permittee has not yet tested. After the Permittee has conducted performance tests on all stacks, the Permittee must conduct a performance test on the stack for which testing is least current. The stacks and associated emission units subject to testing in COMG 56 are: STRU 211 venting EQUI 281, EQUI 375 STRU 217 venting EQUI 324 At the time of a wet scrubber replacement to a dry cartridge filter at a stack as authorized by this permit, the associated stack and vented emission units will no longer be subject to COMG 56 testing requirements and will instead be subject to testing requirements at COMG 57. The first test is due by the date specified above and all subsequent tests must be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test must be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5, 5D, 17, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. NESHAP RRRRR: Each Method 5, 5D, or 17 performance test must consist of three separate runs. Each

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	run must be conducted for a minimum of 1 hour. The average particulate matter concentration from the three runs will be used to determine compliance, as shown in Equation 1 of 40 CFR 63.9621. The Permittee must use the results of this performance test to determine the flow-weighted mean concentration of filterable particulate matter emissions following the procedures in 40 CFR 63.9621(b)(3). [40 CFR 63.7, 40 CFR 63.9630(a), 40 CFR 63.9634(b), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A), Minn. R. 7017.2020, subp. 1]
6.14.2	Filterable Particulate Matter: The Permittee must submit a performance test notification: Due 60 calendar days before the performance test required by 40 CFR pt. 63, subp. RRRRR is scheduled to begin. [40 CFR 63.7(b), 40 CFR 63.9640(d), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A)]
6.14.3	Filterable Particulate Matter: The Permittee must submit the performance test results: Due 60 days after the completion of each performance test required by 40 CFR pt. 63, subp. RRRRR, following the procedures specified in 40 CFR 63.9641(f)(1) through (3). [40 CFR 63.9641(f), Minn. R. 7011.8030]
COMG 57	Taconite MACT Testing Group: Step III Pan feeders - Cartridge Filters
6.15.1	Filterable Particulate Matter: The Permittee must conduct a performance test due 30 days after startup of each replacement cartridge filter controlling emissions from any member of COMG 57, and every 60 months thereafter to measure emissions from one stack venting members of COMG 57. The Permittee must conduct recurring performance tests on one stack and must conduct future performance tests on a stack that the Permittee has not yet tested. After the Permittee has conducted performance tests on all stacks, the Permittee must conduct a performance test on the stack for which testing is least current. The stacks and associated units subject to testing in COMG 57 are: STRU 211 venting EQUI 281, EQUI 375 STRU 217 venting EQUI 324 The first test is due by the date specified above and all subsequent tests must be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test must be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5, 5D, 17, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. NESHAP RRRRR: Each Method 5, 5D, or 17 performance test must consist of three separate runs. Each run must be conducted for a minimum of 1 hour. The average particulate matter concentration from the three runs will be used to determine compliance, as shown in Equation 1 of 40 CFR 63.9621. The Permittee must use the results of this performance test to determine the flow-weighted mean concentration of filterable particulate matter emissions following the procedures in 40 CFR 63.9621(b)(3). [40 CFR 63.7, 40 CFR 63.9630(a), 40 CFR 63.9634(b), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A), Minn. R. 7017.2020, subp. 1]
6.15.2	Filterable Particulate Matter: The Permittee must submit a performance test notification: Due 60 calendar days before the performance test required by 40 CFR pt. 63, subp. RRRRR is scheduled to begin. [40 CFR 63.7(b), 40 CFR 63.9640(d), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A)]
6.15.3	Filterable Particulate Matter: The Permittee must submit the performance test results: Due 60 days after the completion of each performance test required by 40 CFR pt. 63, subp. RRRRR, following the

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	procedures specified in 40 CFR 63.9641(f)(1) through (3). [40 CFR 63.9641(f), Minn. R. 7011.8030]
COMG 58	Taconite MACT Testing Group: Step III Secondary Crushers L11-15 - Scrubbers
6.16.1	Filterable Particulate Matter: The Permittee must conduct a performance test due 9/17/2026 and every 60 months thereafter to measure emissions from one stack venting members of COMG 58. The Permittee must conduct recurring performance tests on one stack and must conduct future performance tests on a stack that the Permittee has not yet tested. After the Permittee has conducted performance tests on all stacks, the Permittee must conduct a performance test on the stack for which testing is least current. The stacks and associated emission units subject to testing in COMG 58 are: STRU 182 venting EQUI 285 STRU 239 venting EQUI 9 STRU 240 venting EQUI 286 STRU 241 venting EQUI 287 At the time of a wet scrubber replacement with a dry cartridge filter at a stack as authorized by this permit, the associated stack and emission units will no longer be subject to COMG 58 testing requirements and instead be subject to testing requirements at COMG 59. The first test is due by the date specified above and all subsequent tests must be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test must be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5, 5D, 17, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. NESHAP RRRRR: Each Method 5, 5D, or 17 performance test must consist of three separate runs. Each run must be conducted for a minimum of 1 hour. The average particulate matter concentration from the three runs will be used to determine compliance, as shown in Equation 1 of 40 CFR 63.9621. The Permittee must use the results of this performance test to determine the flow-weighted mean concentration of filterable particulate matter emissions following the procedures in 40 CFR 63.9621(b)(3). [40 CFR 63.7, 40 CFR 63.9630(a), 40 CFR 63.9634(b), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A), Minn. R. 7017.2020, subp. 1]
6.16.2	Filterable Particulate Matter: The Permittee must submit a performance test notification: Due 60 calendar days before the performance test required by 40 CFR pt. 63, subp. RRRRR is scheduled to begin. [40 CFR 63.7(b), 40 CFR 63.9640(d), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A)]
6.16.3	Filterable Particulate Matter: The Permittee must submit the performance test results: Due 60 days after the completion of each performance test required by 40 CFR pt. 63, subp. RRRRR, following the procedures specified in 40 CFR 63.9641(f)(1) through (3). [40 CFR 63.9641(f), Minn. R. 7011.8030]
COMG 59	Taconite MACT Testing Group: Step III Secondary Crushers L11-15 - Cartridge Filters
6.17.1	Filterable Particulate Matter: The Permittee must conduct a performance test due 180 days after permit issuance, and every 60 months thereafter to measure emissions from one stack venting members of COMG 59. The Permittee must conduct recurring performance tests on one stack and must conduct future performance tests on a stack that the Permittee has not yet tested. After the

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	Permittee has conducted performance tests on all stacks, the Permittee must conduct a performance test on the stack for which testing is least current. The stacks and associated units subject to testing in COMG 59 are: STRU 182 venting EQUI 285 STRU 183 venting EQUI 10 STRU 239 venting EQUI 9 STRU 240 venting EQUI 286 STRU 241 venting EQUI 287 The first test is due by the date specified above and all subsequent tests must be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test must be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5, 5D, 17, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. NESHAP RRRRR: Each Method 5, 5D, or 17 performance test must consist of three separate runs. Each run must be conducted for a minimum of 1 hour. The average particulate matter concentration from the three runs will be used to determine compliance, as shown in Equation 1 of 40 CFR 63.9621. The Permittee must use the results of this performance test to determine the flow-weighted mean concentration of filterable particulate matter emissions following the procedures in 40 CFR 63.9621(b)(3). [40 CFR 63.7, 40 CFR 63.9630(a), 40 CFR 63.9634(b), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A), Minn. R. 7017.2020, subp. 1]
6.17.2	Filterable Particulate Matter: The Permittee must submit a performance test notification: Due 60 calendar days before the performance test required by 40 CFR pt. 63, subp. RRRRR is scheduled to begin. [40 CFR 63.7(b), 40 CFR 63.9640(d), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A)]
6.17.3	Filterable Particulate Matter: The Permittee must submit the performance test results: Due 60 days after the completion of each performance test required by 40 CFR pt. 63, subp. RRRRR, following the procedures specified in 40 CFR 63.9641(f)(1) through (3). [40 CFR 63.9641(f), Minn. R. 7011.8030]
COMG 60	Taconite MACT Testing Group: Step III Secondary Crushers L18-23 - Scrubbers
6.18.1	Filterable Particulate Matter: The Permittee must conduct a performance test due before 9/25/2030 and every 60 months thereafter to measure emissions from one stack venting members of COMG 60. The Permittee must conduct recurring performance tests on one stack and must conduct future performance tests on a stack that the Permittee has not yet tested. After the Permittee has conducted performance tests on all stacks, the Permittee must conduct a performance test on the stack for which testing is least current. The stacks and associated emission units subject to testing in COMG 60 are: STRU 186 venting EQUI 298 STRU 187 venting EQUI 300 STRU 224 venting EQUI 674 STRU 244 venting EQUI 297 STRU 245 venting EQUI 299

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	STRU 246 venting EQUI 301 At the time of a wet scrubber replacement to a dry cartridge filter at a stack as authorized by this permit, the associated stack and vented emission units will no longer be subject to COMG 60 testing requirements and will instead be subject to testing requirements at COMG 61. The first test is due by the date specified above and all subsequent tests must be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test must be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5, 5D, 17, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. NESHAP RRRRR: Each Method 5, 5D, or 17 performance test must consist of three separate runs. Each run must be conducted for a minimum of 1 hour. The average particulate matter concentration from the three runs will be used to determine compliance, as shown in Equation 1 of 40 CFR 63.9621. The Permittee must use the results of this performance test to determine the flow-weighted mean concentration of filterable particulate matter emissions following the procedures in 40 CFR 63.9621(b)(3). [40 CFR 63.7, 40 CFR 63.9630(a), 40 CFR 63.9634(b), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A), Minn. R. 7017.2020, subp. 1]
6.18.2	Filterable Particulate Matter: The Permittee must submit a performance test notification: Due 60 calendar days before the performance test required by 40 CFR pt. 63, subp. RRRRR is scheduled to begin. [40 CFR 63.7(b), 40 CFR 63.9640(d), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A)]
6.18.3	Filterable Particulate Matter: The Permittee must submit the performance test results: Due 60 days after the completion of each performance test required by 40 CFR pt. 63, subp. RRRRR, following the procedures specified in 40 CFR 63.9641(f)(1) through (3). [40 CFR 63.9641(f), Minn. R. 7011.8030]
COMG 61	Taconite MACT Testing Group: Step III Secondary Crushers L18-22 - Cartridge Filters
6.19.1	Filterable Particulate Matter: The Permittee must conduct a performance test due 30 days after startup of each replacement cartridge filter controlling emissions from any member of COMG 61, and every 60 months thereafter to measure emissions from one stack venting members of COMG 61. The Permittee must conduct recurring performance tests on one stack and must conduct future performance tests on a stack that the Permittee has not yet tested. After the Permittee has conducted performance tests on all stacks, the Permittee must conduct a performance test on the stack for which testing is least current. The stacks and associated units subject to testing in COMG 61 are: STRU 186 venting EQUI 298 STRU 187 venting EQUI 300 STRU 224 venting EQUI 674 STRU 244 venting EQUI 297 STRU 245 venting EQUI 299 STRU 246 venting EQUI 301 The first test is due by the date specified above and all subsequent tests must be completed every 60

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	months thereafter by the due date (month and day) and as described below. The performance test must be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5, 5D, 17, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. NESHAP RRRRR: Each Method 5, 5D, or 17 performance test must consist of three separate runs. Each run must be conducted for a minimum of 1 hour. The average particulate matter concentration from the three runs will be used to determine compliance, as shown in Equation 1 of 40 CFR 63.9621. The Permittee must use the results of this performance test to determine the flow-weighted mean concentration of filterable particulate matter emissions following the procedures in 40 CFR 63.9621(b)(3). [40 CFR 63.7, 40 CFR 63.9630(a), 40 CFR 63.9634(b), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A), Minn. R. 7017.2020, subp. 1]
6.19.2	Filterable Particulate Matter: The Permittee must submit a performance test notification: Due 60 calendar days before the performance test required by 40 CFR pt. 63, subp. RRRRR is scheduled to begin. [40 CFR 63.7(b), 40 CFR 63.9640(d), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A)]
6.19.3	Filterable Particulate Matter: The Permittee must submit the performance test results: Due 60 days after the completion of each performance test required by 40 CFR pt. 63, subp. RRRRR, following the procedures specified in 40 CFR 63.9641(f)(1) through (3). [40 CFR 63.9641(f), Minn. R. 7011.8030]
COMG 62	Taconite MACT Testing Group: Step III Secondary Crushers L23-28 - Scrubbers
6.20.1	Filterable Particulate Matter: The Permittee must conduct a performance test due 180 days after permit issuance and every 60 months thereafter to measure emissions from one stack venting members of COMG 62. The Permittee must conduct recurring performance tests on one stack and must conduct future performance tests on a stack that the Permittee has not yet tested. After the Permittee has conducted performance tests on all stacks, the Permittee must conduct a performance test on the stack for which testing is least current. The stacks and associated emission units subject to testing in COMG 62 are: STRU 188 venting EQUI 303 STRU 189 venting EQUI 305 STRU 190 venting EQUI 673 STRU 224 venting EQUI 674 STRU 247 venting EQUI 304 STRU 248 venting EQUI 675 At the time of a wet scrubber replacement to a dry cartridge filter at a stack as authorized by this permit, the associated stack and vented emission units will no longer be subject to COMG 62 testing requirements and will instead be subject to testing requirements at COMG 63. The first test is due by the date specified above and all subsequent tests must be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test must be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5, 5D, 17, or other method approved by MPCA in the performance test plan approval.

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	Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. NESHAP RRRRR: Each Method 5, 5D, or 17 performance test must consist of three separate runs. Each run must be conducted for a minimum of 1 hour. The average particulate matter concentration from the three runs will be used to determine compliance, as shown in Equation 1 of 40 CFR 63.9621. The Permittee must use the results of this performance test to determine the flow-weighted mean concentration of filterable particulate matter emissions following the procedures in 40 CFR 63.9621(b)(3). [40 CFR 63.7, 40 CFR 63.9630(a), 40 CFR 63.9634(b), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A), Minn. R. 7017.2020, subp. 1]
6.20.2	Filterable Particulate Matter: The Permittee must submit a performance test notification: Due 60 calendar days before the performance test required by 40 CFR pt. 63, subp. RRRRR is scheduled to begin. [40 CFR 63.7(b), 40 CFR 63.9640(d), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A)]
6.20.3	Filterable Particulate Matter: The Permittee must submit the performance test results: Due 60 days after the completion of each performance test required by 40 CFR pt. 63, subp. RRRRR, following the procedures specified in 40 CFR 63.9641(f)(1) through (3). [40 CFR 63.9641(f), Minn. R. 7011.8030]
COMG 63	Taconite MACT Testing Group: Step III Secondary Crushers L24-28 - Fabric Filters
6.21.1	Filterable Particulate Matter: The Permittee must conduct a performance test due 30 days after startup of each replacement cartridge filter controlling emissions from any member of COMG 63, and every 60 months thereafter to measure emissions from one stack venting members of COMG 63. The Permittee must conduct recurring performance tests on one stack and must conduct future performance tests on a stack that the Permittee has not yet tested. After the Permittee has conducted performance tests on all stacks, the Permittee must conduct a performance test on the stack for which testing is least current. The stacks and associated units subject to testing in COMG 63 are: STRU 188 venting EQUI 303 STRU 189 venting EQUI 305 STRU 190 venting EQUI 673 STRU 224 venting EQUI 674 STRU 247 venting EQUI 304 STRU 248 venting EQUI 675 The first test is due by the date specified above and all subsequent tests must be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test must be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5, 5D, 17, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date.

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	NESHAP RRRRR: Each Method 5, 5D, or 17 performance test must consist of three separate runs. Each run must be conducted for a minimum of 1 hour. The average particulate matter concentration from the three runs will be used to determine compliance, as shown in Equation 1 of 40 CFR 63.9621. The Permittee must use the results of this performance test to determine the flow-weighted mean concentration of filterable particulate matter emissions following the procedures in 40 CFR 63.9621(b)(3). [40 CFR 63.7, 40 CFR 63.9630(a), 40 CFR 63.9634(b), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A), Minn. R. 7017.2020, subp. 1]
6.21.2	Filterable Particulate Matter: The Permittee must submit a performance test notification: Due 60 calendar days before the performance test required by 40 CFR pt. 63, subp. RRRRR is scheduled to begin. [40 CFR 63.7(b), 40 CFR 63.9640(d), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A)]
6.21.3	Filterable Particulate Matter: The Permittee must submit the performance test results: Due 60 days after the completion of each performance test required by 40 CFR pt. 63, subp. RRRRR, following the procedures specified in 40 CFR 63.9641(f)(1) through (3). [40 CFR 63.9641(f), Minn. R. 7011.8030]
COMG 64	Taconite MACT Testing Group: Step III Conveyors Group 1 - Scrubbers
6.22.1	Filterable Particulate Matter: The Permittee must conduct a performance test due before 11/13/2028 and every 60 months thereafter to measure emissions from one stack venting members of COMG 64. The Permittee must conduct recurring performance tests on one stack and must conduct future performance tests on a stack that the Permittee has not yet tested. After the Permittee has conducted performance tests on all stacks, the Permittee must conduct a performance test on the stack for which testing is least current. The stacks and associated emission units subject to testing in COMG 64 are: STRU 117 venting EQUI 173, EQUI 240, EQUI 241, EQUI 395 STRU 181 venting EQUI 8, EQUI 284 STRU 184 venting EQUI 11 STRU 242 venting EQUI 288, EQUI 289 STRU 243 venting EQUI 12, EQUI 290 At the time of a wet scrubber replacement to a dry cartridge filter at a stack as authorized by this permit, the associated stack and vented emission units will no longer be subject to COMG 64 testing requirements and will instead be subject to testing requirements at COMG 65. The first test is due by the date specified above and all subsequent tests must be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test must be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5, 5D, 17, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. NESHAP RRRRR: Each Method 5, 5D, or 17 performance test must consist of three separate runs. Each run must be conducted for a minimum of 1 hour. The average particulate matter concentration from the three runs will be used to determine compliance, as shown in Equation 1 of 40 CFR 63.9621. The

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	Permittee must use the results of this performance test to determine the flow-weighted mean concentration of filterable particulate matter emissions following the procedures in 40 CFR 63.9621(b)(3). [40 CFR 63.7, 40 CFR 63.9630(a), 40 CFR 63.9634(b), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A), Minn. R. 7017.2020, subp. 1]
6.22.2	Filterable Particulate Matter: The Permittee must submit a performance test notification: Due 60 calendar days before the performance test required by 40 CFR pt. 63, subp. RRRRR is scheduled to begin. [40 CFR 63.7(b), 40 CFR 63.9640(d), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A)]
6.22.3	Filterable Particulate Matter: The Permittee must submit the performance test results: Due 60 days after the completion of each performance test required by 40 CFR pt. 63, subp. RRRRR, following the procedures specified in 40 CFR 63.9641(f)(1) through (3). [40 CFR 63.9641(f), Minn. R. 7011.8030]
COMG 65	Taconite MACT Testing Group: Step III Conveyors - Cartridge Filters
6.23.1	Filterable Particulate Matter: The Permittee must conduct a performance test due 30 days after startup of each replacement cartridge filter controlling emissions from any member of COMG 65, and every 60 months thereafter to measure emissions from one stack venting members of COMG 65. The Permittee must conduct recurring performance tests on one stack and must conduct future performance tests on a stack that the Permittee has not yet tested. After the Permittee has conducted performance tests on all stacks, the Permittee must conduct a performance test on the stack for which testing is least current. The stacks and associated units subject to testing in COMG 65 are: STRU 117 venting EQUI 173, EQUI 240, EQUI 241, EQUI 395 STRU 181 venting EQUI 8, EQUI 284 STRU 184 venting EQUI 11 STRU 242 venting EQUI 288, EQUI 289 STRU 243 venting EQUI 12, EQUI 290 The first test is due by the date specified above and all subsequent tests must be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test must be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5, 5D, 17, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. NESHAP RRRRR: Each Method 5, 5D, or 17 performance test must consist of three separate runs. Each run must be conducted for a minimum of 1 hour. The average particulate matter concentration from the three runs will be used to determine compliance, as shown in Equation 1 of 40 CFR 63.9621. The Permittee must use the results of this performance test to determine the flow-weighted mean concentration of filterable particulate matter emissions following the procedures in 40 CFR 63.9621(b)(3). [40 CFR 63.7, 40 CFR 63.9630(a), 40 CFR 63.9634(b), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A), Minn. R. 7017.2020, subp. 1]
6.23.2	Filterable Particulate Matter: The Permittee must submit a performance test notification: Due 60 calendar days before the performance test required by 40 CFR pt. 63, subp. RRRRR is scheduled to begin. [40 CFR 63.7(b), 40 CFR 63.9640(d), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A)]

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6.23.3	Filterable Particulate Matter: The Permittee must submit the performance test results: Due 60 days after the completion of each performance test required by 40 CFR pt. 63, subp. RRRRR, following the procedures specified in 40 CFR 63.9641(f)(1) through (3). [40 CFR 63.9641(f), Minn. R. 7011.8030]
COMG 66	Taconite MACT Testing Group: Step III Storage Bins Group 1 - Fabric Filters
6.24.1	Filterable Particulate Matter: The Permittee must conduct a performance test due before 9/23/2027 and every 60 months thereafter to measure emissions from the members of one stack in COMG 66. The Permittee must conduct recurring performance tests on one stack and must conduct future performance tests on a stack that the Permittee has not yet tested. After the Permittee has conducted performance tests on all stacks, the Permittee must conduct a performance test on the stack for which testing is least current. The stacks and associated emission units subject to testing in COMG 66 are: STRU 198 venting EQUI 136, EQUI 174, EQUI 242, EQUI 243, EQUI 244, EQUI 245, EQUI 246 STRU 199 venting EQUI 251, EQUI 252, EQUI 253, EQUI 254, EQUI 140, EQUI 141, EQUI 142 The first test is due by the date specified above and all subsequent tests must be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test must be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5, 5D, 17, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. NESHAP RRRRR: Each Method 5, 5D, or 17 performance test must consist of three separate runs. Each run must be conducted for a minimum of 1 hour. The average particulate matter concentration from the three runs will be used to determine compliance, as shown in Equation 1 of 40 CFR 63.9621. The Permittee must use the results of this performance test to determine the flow-weighted mean concentration of filterable particulate matter emissions following the procedures in 40 CFR 63.9621(b)(3). [40 CFR 63.7, 40 CFR 63.9630(a), 40 CFR 63.9634(b), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A), Minn. R. 7017.2020, subp. 1]
6.24.2	Filterable Particulate Matter: The Permittee must submit a performance test notification: Due 60 calendar days before the performance test required by 40 CFR pt. 63, subp. RRRRR is scheduled to begin. [40 CFR 63.7(b), 40 CFR 63.9640(d), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A)]
6.24.3	Filterable Particulate Matter: The Permittee must submit the performance test results: Due 60 days after the completion of each performance test required by 40 CFR pt. 63, subp. RRRRR, following the procedures specified in 40 CFR 63.9641(f)(1) through (3). [40 CFR 63.9641(f), Minn. R. 7011.8030]
COMG 67	Taconite MACT Testing Group: Step III Conveyors Group 2 - Fabric Filters
6.25.1	Filterable Particulate Matter: The Permittee must conduct a performance test due 4/9/2029 and every 60 months thereafter to measure emissions from the members of one stack in COMG 67. The Permittee must conduct recurring performance tests on one stack and must conduct future performance tests on a stack that the Permittee has not yet tested. After the Permittee has conducted performance tests on all stacks, the Permittee must conduct a performance test on the stack for which testing is least current.

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	The stacks and associated emission units subject to testing in COMG 67 are: STRU 181 venting EQUI 8, EQUI 284 STRU 191 venting EQUI 309, EQUI 310 STRU 216 venting EQUI 321, EQUI 322, EQUI 323, EQUI 378, EQUI 379, EQUI 380 The first test is due by the date specified above and all subsequent tests must be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test must be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5, 5D, 17, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. NESHAP RRRRR: Each Method 5, 5D, or 17 performance test must consist of three separate runs. Each run must be conducted for a minimum of 1 hour. The average particulate matter concentration from the three runs will be used to determine compliance, as shown in Equation 1 of 40 CFR 63.9621. The Permittee must use the results of this performance test to determine the flow-weighted mean concentration of filterable particulate matter emissions following the procedures in 40 CFR 63.9621(b)(3). [40 CFR 63.7, 40 CFR 63.9630(a), 40 CFR 63.9634(b), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A), Minn. R. 7017.2020, subp. 1]
6.25.2	Filterable Particulate Matter: The Permittee must submit a performance test notification: Due 60 calendar days before the performance test required by 40 CFR pt. 63, subp. RRRRR is scheduled to begin. [40 CFR 63.7(b), 40 CFR 63.9640(d), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A)]
6.25.3	Filterable Particulate Matter: The Permittee must submit the performance test results: Due 60 days after the completion of each performance test required by 40 CFR pt. 63, subp. RRRRR, following the procedures specified in 40 CFR 63.9641(f)(1) through (3). [40 CFR 63.9641(f), Minn. R. 7011.8030]
COMG 68	Taconite MACT Testing Group: Step III Storage Bins Group 2 - Scrubbers
6.26.1	Filterable Particulate Matter: The Permittee must conduct a performance test due before 180 days after permit issuance and every 60 months thereafter to measure emissions from the members of one stack in COMG 68. The Permittee must conduct recurring performance tests on one stack and must conduct future performance tests on a stack that the Permittee has not yet tested. After the Permittee has conducted performance tests on all stacks, the Permittee must conduct a performance test on the stack for which testing is least current. The stacks and associated emission units subject to testing in COMG 68 are: STRU 152 venting EQUI 47, and EQUI 203 STRU 153 venting EQUI 72 and EQUI 73 The first test is due by the date specified above and all subsequent tests must be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test must be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5, 5D, 17, or other method approved by MPCA in the performance test plan approval.

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	Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. NESHAP RRRRR: Each Method 5, 5D, or 17 performance test must consist of three separate runs. Each run must be conducted for a minimum of 1 hour. The average particulate matter concentration from the three runs will be used to determine compliance, as shown in Equation 1 of 40 CFR 63.9621. The Permittee must use the results of this performance test to determine the flow-weighted mean concentration of filterable particulate matter emissions following the procedures in 40 CFR 63.9621(b)(3). [40 CFR 63.7, 40 CFR 63.9630(a), 40 CFR 63.9634(b), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A), Minn. R. 7017.2020, subp. 1]
6.26.2	Filterable Particulate Matter: The Permittee must submit a performance test notification: Due 60 calendar days before the performance test required by 40 CFR pt. 63, subp. RRRRR is scheduled to begin. [40 CFR 63.7(b), 40 CFR 63.9640(d), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A)]
6.26.3	Filterable Particulate Matter: The Permittee must submit the performance test results: Due 60 days after the completion of each performance test required by 40 CFR pt. 63, subp. RRRRR, following the procedures specified in 40 CFR 63.9641(f)(1) through (3). [40 CFR 63.9641(f), Minn. R. 7011.8030]
COMG 69	Taconite MACT Testing Group: Step I/II Pellet Handling Conveyors - Scrubbers
6.27.1	Filterable Particulate Matter: The Permittee must conduct a performance test due before June 19, 2030, and every 60 months thereafter to measure emissions from one stack venting members of COMG 69. The Permittee must conduct recurring performance tests on one stack and must conduct future performance tests on a stack that the Permittee has not yet tested. After the Permittee has conducted performance tests on all stacks, the Permittee must conduct a performance test on the stack for which testing is least current. The stacks and associated units subject to testing in COMG 69 are: STRU 122 venting EQUI 351 STRU 123 venting EQUI 149, EQUI 353 STRU 204 venting EQUI 150, EQUI 354 STRU 230 venting EQUI 46, EQUI 315, EQUI 372 STRU 256 venting EQUI 81, EQUI 82, EQUI 272, EQUI 273 The first test is due by the date specified above and all subsequent tests must be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test must be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5, 5D, 17, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. NESHAP RRRRR: Each Method 5, 5D, or 17 performance test must consist of three separate runs. Each

Requirement number	Requirement and citation
	run must be conducted for a minimum of 1 hour. The average particulate matter concentration from the three runs will be used to determine compliance, as shown in Equation 1 of 40 CFR 63.9621. The Permittee must use the results of this performance test to determine the flow-weighted mean concentration of filterable particulate matter emissions following the procedures in 40 CFR 63.9621(b)(3). [40 CFR 63.7, 40 CFR 63.9630(c), 40 CFR 63.9634(b), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A), Minn. R. 7017.2020, subp. 1]
6.27.2	Filterable Particulate Matter: The Permittee must submit a performance test notification: Due 60 calendar days before the performance test required by 40 CFR pt. 63, subp. RRRRR is scheduled to begin. [40 CFR 63.7(b), 40 CFR 63.9640(d), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A)]
6.27.3	Filterable Particulate Matter: The Permittee must submit the performance test results: Due 60 days after the completion of each performance test required by 40 CFR pt. 63, subp. RRRRR, following the procedures specified in 40 CFR 63.9641(f)(1) through (3). [40 CFR 63.9641(f), Minn. R. 7011.8030]
6.27.4	Particulate Matter: The Permittee shall conduct a performance test due 6/19/2030 and every 60 months thereafter to verify the emission factor of filterable particulate matter and condensable particulate matter in lb/long ton pellets and lb/hr from one member of COMG 69. The Permittee must conduct recurring performance tests on one group member and must conduct future performance tests on a group member that the Permittee has not yet tested. After the Permittee has conducted performance tests on all group members, the Permittee must conduct a performance test on the group member for which testing is least current. The first test is due by the date specified above and all subsequent tests shall be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5 and 202, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7017.2020, subp. 1, Minn. R. 7019.3050, subp. C]
COMG 70	Taconite MACT Testing Group: Step I/II Grate Feeds - Scrubbers
6.28.1	Filterable Particulate Matter: The Permittee must conduct a performance test due before 5/8/2029 and every 60 months thereafter to measure emissions from one stack venting members of COMG 70. The Permittee must conduct recurring performance tests on one stack and must conduct future performance tests on a stack that the Permittee has not yet tested. After the Permittee has conducted performance tests on all stacks, the Permittee must conduct a performance test on the stack for which testing is least current. The stacks and associated units subject to testing in COMG 70 are: STRU 120 venting EQUI 347 STRU 127 venting EQUI 159 STRU 221 venting EQUI 36 The first test is due by the date specified above and all subsequent tests must be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test must be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5, 5D, 17, or other method approved by MPCA in the performance test plan approval.

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	Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. NESHAP RRRRR: Each Method 5, 5D, or 17 performance test must consist of three separate runs. Each run must be conducted for a minimum of 1 hour. The average particulate matter concentration from the three runs will be used to determine compliance, as shown in Equation 1 of 40 CFR 63.9621. The Permittee must use the results of this performance test to determine the flow-weighted mean concentration of filterable particulate matter emissions following the procedures in 40 CFR 63.9621(b)(3). [40 CFR 63.7, 40 CFR 63.9630(c), 40 CFR 63.9634(b), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A), Minn. R. 7017.2020, subp. 1]
6.28.2	Filterable Particulate Matter: The Permittee must submit a performance test notification: Due 60 calendar days before the performance test required by 40 CFR pt. 63, subp. RRRRR is scheduled to begin. [40 CFR 63.7(b), 40 CFR 63.9640(d), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A)]
6.28.3	Filterable Particulate Matter: The Permittee must submit the performance test results: Due 60 days after the completion of each performance test required by 40 CFR pt. 63, subp. RRRRR, following the procedures specified in 40 CFR 63.9641(f)(1) through (3). [40 CFR 63.9641(f), Minn. R. 7011.8030]
6.28.4	Particulate Matter: The Permittee shall conduct a performance test due 5/8/2029 and every 60 months thereafter to verify the emission factor of filterable particulate matter and condensable particulate matter in lb/long ton pellet and lb/hr from one member of COMG 70. The Permittee must conduct recurring performance tests on one group member and must conduct future performance tests on a group member that the Permittee has not yet tested. After the Permittee has conducted performance tests on all group members, the Permittee must conduct a performance test on the group member for which testing is least current. The first test is due by the date specified above and all subsequent tests shall be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5 and 202, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7017.2020, subp. 1, Minn. R. 7019.3050, subp. C]
COMG 71	Taconite MACT Testing Group: Step I/II Cooler Discharge - Scrubbers
6.29.1	Filterable Particulate Matter: The Permittee must conduct a performance test due before May 8, 2027, and every 60 months thereafter to measure emissions from one stack venting members of COMG 71. The Permittee must conduct recurring performance tests on one stack and must conduct future performance tests on a stack that the Permittee has not yet tested. After the Permittee has conducted performance tests on all stacks, the Permittee must conduct a performance test on the stack for which testing is least current. The stacks and associated units subject to testing in COMG 71 are:

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	STRU 61 venting EQUI 272 STRU 130 venting EQUI 371 STRU 134 venting EQUI 42 STRU 202 venting EQUI 147 STRU 209 venting EQUI 79 The first test is due by the date specified above and all subsequent tests must be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test must be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5, 5D, 17, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. NESHAP RRRRR: Each Method 5, 5D, or 17 performance test must consist of three separate runs. Each run must be conducted for a minimum of 1 hour. The average particulate matter concentration from the three runs will be used to determine compliance, as shown in Equation 1 of 40 CFR 63.9621. The Permittee must use the results of this performance test to determine the flow-weighted mean concentration of filterable particulate matter emissions following the procedures in 40 CFR 63.9621(b)(3). [40 CFR 63.7, 40 CFR 63.9630(c), 40 CFR 63.9634(b), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A), Minn. R. 7017.2020, subp. 1]
6.29.2	Filterable Particulate Matter: The Permittee must submit a performance test notification: Due 60 calendar days before the performance test required by 40 CFR pt. 63, subp. RRRRR is scheduled to begin. [40 CFR 63.7(b), 40 CFR 63.9640(d), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A)]
6.29.3	Filterable Particulate Matter: The Permittee must submit the performance test results: Due 60 days after the completion of each performance test required by 40 CFR pt. 63, subp. RRRRR, following the procedures specified in 40 CFR 63.9641(f)(1) through (3). [40 CFR 63.9641(f), Minn. R. 7011.8030]
6.29.4	Particulate Matter: The Permittee shall conduct a performance test due 5/8/2027 and every 60 months thereafter to verify the emission factor of filterable particulate matter and condensable particulate matter in lb/long ton pellet and lb/hr from one member of COMG 71. The Permittee must conduct recurring performance tests on one group member and must conduct future performance tests on a group member that the Permittee has not yet tested. After the Permittee has conducted performance tests on all group members, the Permittee must conduct a performance test on the group member for which testing is least current. The first test is due by the date specified above and all subsequent tests shall be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5 and 202, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due

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	date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7017.2020, subp. 1, Minn. R. 7019.3050, subp. C]
COMG 72	Taconite MACT Testing Group: Step III Pellet Handling Conveyors - Scrubbers
6.30.1	Filterable Particulate Matter: The Permittee must conduct a performance test due before 5/6/2030 and every 60 months thereafter to measure emissions from one stack venting members of COMG 72. The Permittee must conduct recurring performance tests on one stack and must conduct future performance tests on a stack that the Permittee has not yet tested. After the Permittee has conducted performance tests on all stacks, the Permittee must conduct a performance test on the stack for which testing is least current. The stacks and associated units subject to testing in COMG 72 are: STRU 64 venting EQUI 87, EQUI 164 STRU 271 venting EQUI 119, EQUI 120 STRU 70 venting EQUI 122, EQUI 123 STRU 141 venting EQUI 96 STRU 157 venting EQUI 104 The first test is due by the date specified above and all subsequent tests must be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test must be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5, 5D, 17, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. NESHAP RRRRR: Each Method 5, 5D, or 17 performance test must consist of three separate runs. Each run must be conducted for a minimum of 1 hour. The average particulate matter concentration from the three runs will be used to determine compliance, as shown in Equation 1 of 40 CFR 63.9621. The Permittee must use the results of this performance test to determine the flow-weighted mean concentration of filterable particulate matter emissions following the procedures in 40 CFR 63.9621(b)(3). [40 CFR 63.7, 40 CFR 63.9630(c), 40 CFR 63.9634(b), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A), Minn. R. 7017.2020, subp. 1]
6.30.2	Filterable Particulate Matter: The Permittee must submit a performance test notification: Due 60 calendar days before the performance test required by 40 CFR pt. 63, subp. RRRRR is scheduled to begin. [40 CFR 63.7(b), 40 CFR 63.9640(d), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A)]
6.30.3	Filterable Particulate Matter: The Permittee must submit the performance test results: Due 60 days after the completion of each performance test required by 40 CFR pt. 63, subp. RRRRR, following the procedures specified in 40 CFR 63.9641(f)(1) through (3). [40 CFR 63.9641(f), Minn. R. 7011.8030]
6.30.4	Particulate Matter: The Permittee shall conduct a performance test due 5/6/2030 and every 60 months thereafter to verify the emission factor of filterable particulate matter and condensable particulate matter in lb/long ton pellet and lb/hr from one member of COMG 72. The Permittee must conduct recurring performance tests on one group member and must conduct future performance tests on a group member that the Permittee has not yet tested. After the Permittee has conducted performance tests on all group members, the Permittee must conduct a performance test on the group member for which testing is least current.

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	The first test is due by the date specified above and all subsequent tests shall be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5 and 202, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7017.2020, subp. 1, Minn. R. 7019.3050, subp. C]
COMG 73	Line 3 CEMS
6.31.1	CEMS Certification/Recertification Test: due 90 days after the first excess emissions report required for the CEMS or any change which invalidates the monitor's certification status as outlined in Minn. R. 7017.1050, subp. 2. [Minn. R. 7017.1050, subp. 1]
6.31.2	Certification Test Plan due 30 days before Certification Test. Certification Test Pretest Meeting due seven days before Certification Test. Certification Test Report due 45 days after Certification Test. Notify the commissioner prior to making any planned change or if unforeseen, within two working days, when a monitor must be recertified as outlined in Minn. R. 7017.1050, subp. 2. Test plans and reports must be submitted in a format specified by the commissioner. [Minn. R. 7017.1060, subp. 1-3, Minn. R. 7017.1080]
COMG 74	Line 4 CEMS
6.32.1	CEMS Certification/Recertification Test: due 90 days after the first excess emissions report required for the CEMS or any change which invalidates the monitor's certification status as outlined in Minn. R. 7017.1050, subp. 2. [Minn. R. 7017.1050, subp. 1]
6.32.2	Certification Test Plan due 30 days before Certification Test. Certification Test Pretest Meeting due seven days before Certification Test. Certification Test Report due 45 days after Certification Test. Notify the commissioner prior to making any planned change or if unforeseen, within two working days, when a monitor must be recertified as outlined in Minn. R. 7017.1050, subp. 2. Test plans and reports must be submitted in a format specified by the commissioner. [Minn. R. 7017.1060, subp. 1-3, Minn. R. 7017.1080]
COMG 75	Line 5 CEMS
6.33.1	CEMS Certification/Recertification Test: due 90 days after the first excess emissions report required for the CEMS or any change which invalidates the monitor's certification status as outlined in Minn. R. 7017.1050, subp. 2. [Minn. R. 7017.1050, subp. 1]
6.33.2	Certification Test Plan due 30 days before Certification Test. Certification Test Pretest Meeting due seven days before Certification Test. Certification Test Report due 45 days after Certification Test. Notify the commissioner prior to making any planned change or if unforeseen, within two working days, when a monitor must be recertified as outlined in Minn. R. 7017.1050, subp. 2.

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	Test plans and reports must be submitted in a format specified by the commissioner. [Minn. R. 7017.1060, subp. 1-3, Minn. R. 7017.1080]
COMG 76	Line 6 CEMS
6.34.1	CEMS Certification/Recertification Test: due 90 days after the first excess emissions report required for the CEMS or any change which invalidates the monitor's certification status as outlined in Minn. R. 7017.1050, subp. 2. [Minn. R. 7017.1050, subp. 1]
6.34.2	Certification Test Plan due 30 days before Certification Test. Certification Test Pretest Meeting due seven days before Certification Test. Certification Test Report due 45 days after Certification Test. Notify the commissioner prior to making any planned change or if unforeseen, within two working days, when a monitor must be recertified as outlined in Minn. R. 7017.1050, subp. 2. Test plans and reports must be submitted in a format specified by the commissioner. [Minn. R. 7017.1060, subp. 1-3, Minn. R. 7017.1080]
COMG 77	Line 7 CEMS
6.35.1	CEMS Certification/Recertification Test: due 90 days after the first excess emissions report required for the CEMS or any change which invalidates the monitor's certification status as outlined in Minn. R. 7017.1050, subp. 2. [Minn. R. 7017.1050, subp. 1]
6.35.2	Certification Test Plan due 30 days before Certification Test. Certification Test Pretest Meeting due seven days before Certification Test. Certification Test Report due 45 days after Certification Test. Notify the commissioner prior to making any planned change or if unforeseen, within two working days, when a monitor must be recertified as outlined in Minn. R. 7017.1050, subp. 2. Test plans and reports must be submitted in a format specified by the commissioner. [Minn. R. 7017.1060, subp. 1-3, Minn. R. 7017.1080]
COMG 78	Taconite MACT Testing Group: Step III Grate Feeds - Scrubbers
6.36.1	Filterable Particulate Matter: The Permittee must conduct a performance test due before 180 days after permit issuance and every 60 months thereafter to measure emissions from the members of one stack in COMG 78. The Permittee must conduct recurring performance tests on one stack and must conduct future performance tests on a stack that the Permittee has not yet tested. After the Permittee has conducted performance tests on all stacks, the Permittee must conduct a performance test on the stack for which testing is least current. The stacks and associated emission units subject to testing in COMG 78 are: STRU 141 venting EQUI 96 STRU 157 venting EQUI 104 The first test is due by the date specified above and all subsequent tests must be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test must be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5, 5D, 17, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test

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	due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. NESHAP RRRRR: Each Method 5, 5D, or 17 performance test must consist of three separate runs. Each run must be conducted for a minimum of 1 hour. The average particulate matter concentration from the three runs will be used to determine compliance, as shown in Equation 1 of 40 CFR 63.9621. The Permittee must use the results of this performance test to determine the flow-weighted mean concentration of filterable particulate matter emissions following the procedures in 40 CFR 63.9621(b)(3). [40 CFR 63.7, 40 CFR 63.9630(a), 40 CFR 63.9634(b), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A), Minn. R. 7017.2020, subp. 1]
6.36.2	Filterable Particulate Matter: The Permittee must submit a performance test notification: Due 60 calendar days before the performance test required by 40 CFR pt. 63, subp. RRRRR is scheduled to begin. [40 CFR 63.7(b), 40 CFR 63.9640(d), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A)]
6.36.3	Filterable Particulate Matter: The Permittee must submit the performance test results: Due 60 days after the completion of each performance test required by 40 CFR pt. 63, subp. RRRRR, following the procedures specified in 40 CFR 63.9641(f)(1) through (3). [40 CFR 63.9641(f), Minn. R. 7011.8030]
6.36.4	Particulate Matter: The Permittee shall conduct a performance test due before 180 days after permit issuance and every 60 months thereafter to verify the emission factor of filterable particulate matter and condensable particulate matter in lb/long ton crude ore and lb/hr from one member of COMG 78. The Permittee must conduct recurring performance tests on one group member and must conduct future performance tests on a group member that the Permittee has not yet tested. After the Permittee has conducted performance tests on all group members, the Permittee must conduct a performance test on the group member for which testing is least current. The first test is due by the date specified above and all subsequent tests shall be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5 and 202, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7017.2020, subp. 1, Minn. R. 7019.3050, subp. C]
COMG 79	Line 6 and 7 Mercury Emission Inventory Testing
6.37.1	Mercury: The Permittee shall conduct a performance test due before 6/17/2030 and every 60 months thereafter to verify the emission factor of mercury in lb/hour from one member of COMG 79 (EQUI 3 or EQUI 179). Members of COMG 79 are considered to be substantially equivalent under Minn. R. 7019.3050, subp. E(4). The first test is due by the date specified above and all subsequent tests shall be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the

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	operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Method 29 or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7017.2020, subp. 1, Minn. R. 7019.3050, subp. E(4), Minn. R. 7019.3050, subp. E(5)]
COMG 80	Line 4 and 5 Mercury Emission Inventory Testing
6.38.1	Mercury: The Permittee shall conduct a performance test due before 6/17/2030 and every 60 months thereafter to verify the emission factor of mercury in lb/hour from one member of COMG 80 (EQUI 279 or EQUI 280). Members of COMG 80 are considered to be substantially equivalent under Minn. R. 7019.3050, subp. E(4). The first test is due by the date specified above and all subsequent tests shall be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Method 29 or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7017.2020, subp. 1, Minn. R. 7019.3050, subp. E(4), Minn. R. 7019.3050, subp. E(5)]
EQUI 3	L6 Rotary Kiln
6.39.1	Filterable Particulate Matter: The Permittee must conduct a performance test due before 11/6/2027 and every 30 months thereafter to measure emissions. The first test is due by the date specified above and all subsequent tests must be completed every 30 months thereafter by the due date (month and day) and as described below. The performance test must be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5, 5D, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. NESHAP RRRRR: Each Method 5 or 5D performance test must consist of three separate runs. Each run must be conducted for a minimum of 1 hour. The average particulate matter concentration from the three runs will be used to determine compliance, as shown in Equation 1 of 40 CFR Section 63.9621. [40 CFR 63.7, 40 CFR 63.9630(b), 40 CFR 63.9634(c)(2), Minn. R. 7011.8030, Minn. R. 7017.2015, subp.

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	3(A), Minn. R. 7017.2020, subp. 1]
6.39.2	Filterable Particulate Matter: The Permittee must submit a performance test notification: Due 60 calendar days before the performance test required by 40 CFR pt. 63, subp. RRRRR is scheduled to begin. [40 CFR 63.7(b), 40 CFR 63.9640(d), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A)]
6.39.3	Filterable Particulate Matter: The Permittee must submit the performance test results: Due 60 days after the completion of each performance test required by 40 CFR pt. 63, subp. RRRRR, following the procedures specified in 40 CFR Section 63.9641(f)(1) through (3). [40 CFR 63.9641(f), Minn. R. 7011.8030]
6.39.4	The Permittee must submit a semiannual compliance report: Due semiannually, by the 31st of January and July. The semiannual compliance reports must include the information in 40 CFR Section 63.9641(b)(1) through (8), as applicable. [40 CFR 63.9641(a) & (b), Minn. R. 7011.8030]
6.39.5	PM < 10 micron: The Permittee shall conduct a performance test due before 11/6/2027 and every 30 months thereafter to verify the emission factor of PM < 10 micron in lb/long ton pellets and lb/hr. The first test is due by the date specified above and all subsequent tests shall be completed every 30 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Method 202, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7007.0800, subp. 2(B), Minn. R. 7017.2020, subp. 1]
6.39.6	PM < 2.5 micron: The Permittee shall conduct a performance test due before 11/6/2027 and every 30 months thereafter to verify the emission factor of PM < 2.5 micron in lb/long ton pellets and lb/hr. The first test is due by the date specified above and all subsequent tests shall be completed every 30 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Method 202, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7007.0800, subp. 2(B), Minn. R. 7017.2020, subp. 1]
6.39.7	Particulate Matter: The Permittee shall conduct a performance test due before 11/6/2027 and every 30 months thereafter to measure emissions. The first test is due by the date specified above and all subsequent tests shall be completed every 30 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5 and 202, or other method approved by MPCA in the performance test plan approval.

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	Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7007.0800, subp. 2(B), Minn. R. 7017.2020, subp. 1]
6.39.8	Carbon Monoxide: The Permittee shall conduct a performance test due before 4/25/2029 and every 60 months thereafter to measure emissions. The first test is due by the date specified above and all subsequent tests shall be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 10, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7017.2020, subp. 1, Title I Condition: 40 CFR 52.21(j)(BACT) and Minn. R. 7007.3000]
6.39.9	Volatile Organic Compounds: The Permittee shall conduct a performance test due before 4/25/2029 and every 60 months thereafter to measure emissions. The first test is due by the date specified above and all subsequent tests shall be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 25A, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7017.2020, subp. 1, Title I Condition: 40 CFR pt. 52, 21(j)(BACT) and Minn. R. 7007.3000]
6.39.10	Fluorides: The Permittee shall conduct a performance test due before 4/25/2029 and every 60 months thereafter to measure emissions. The first test is due by the date specified above and all subsequent tests shall be completed every 60 months thereafter by the due date (month and day) as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Method 18, 320, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test

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	date. [Minn. R. 7017.2020, subp. 1, Title I Condition: 40 CFR 52.21(j)(BACT) and Minn. R. 7007.3000]
6.39.11	Mercury: If the Permittee elects to demonstrate compliance with the mercury emission limit with performance testing, the Permittee must conduct an initial performance test: due no later than 180 days after March 8, 2027 (September 4, 2027) and at a minimum of every 30 months thereafter to measure emissions. Performance tests conducted between March 6, 2024 and 180 days after the corresponding compliance date (September 4, 2027) can be used for initial compliance demonstration, provided the tests meet the initial performance testing requirements of 40 CFR pt. 63, subp. RRRRR. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 29, 30B, or other method approved by MPCA in the performance test plan approval. Each mercury performance test must follow the test methods and procedures in 40 CFR 63.9621(d)(1) through (9). Testing conducted during the 60 days prior to a performance test due date will not reset the due date for future testing. Testing conducted more than 60 days prior to the specified due date satisfies this test due date requirement but will reset future performance test due dates based on the most recent performance test date. Under authority provided in Section 112(i)(4) of the Clean Air Act (42 U.S.C. 7412(i)(4)) and according to Proclamation 10958 of July 17, 2025, the Permittee is exempt from compliance with the May 6, 2024, amendments to 40 CFR pt. 63, subp. RRRRR (89 FR 16408) (Taconite MACT amendments) for a period of two years beyond the Taconite MACT amendments' relevant compliance dates. This exemption applies to all compliance deadlines established under the Taconite MACT amendments, with each such deadline extended by two years from the date originally required for such deadline. The effect of this exemption is that, during each such 2-year period, the Permittee is subject to the emissions and compliance obligations that they are currently subject to under 40 CFR pt. 63, subp. RRRRR as that standard existed prior to the Taconite MACT amendments. A copy of the presidential proclamation, as published in the Federal Register on July 23, 2025 (90 FR 34743), is included in Appendix O. [40 CFR 63.4(a)(1), 40 CFR 63.6(j), 40 CFR 63.6(a)(1)(ii), 40 CFR 63.6920(k)(1), 40 CFR 63.6930(b), 40 CFR 63.7, Minn. R. 7011.2015, subp. 3(A), Minn. R. 7011.8030, Minn. R. 7017.2020, subp. 1]
6.39.12	Hydrogen Chloride: If the Permittee elects to demonstrate compliance with the mercury emission limit with performance testing, the Permittee must conduct an initial performance test: due no later than 180 days after March 8, 2027 (September 4, 2027) and at a minimum of every 30 months thereafter to measure emissions. Performance tests conducted between March 6, 2024 and 180 days after the corresponding compliance date (September 4, 2027) can be used for initial compliance demonstration, provided the tests meet the initial performance testing requirements of 40 CFR pt. 63, subp. RRRRR. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 26A, or other method approved by MPCA in the performance test plan approval. Each hydrogen chloride performance test must follow the test methods and procedures in 40 CFR 63.9621(d)(1) through (9). Testing conducted during the 60 days prior to a performance test due date will not reset the due date for future testing. Testing conducted more than 60 days prior to the specified due date satisfies this

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	test due date requirement but will reset future performance test due dates based on the most recent performance test date. Under authority provided in Section 112(i)(4) of the Clean Air Act (42 U.S.C. 7412(i)(4)) and according to Proclamation 10958 of July 17, 2025, the Permittee is exempt from compliance with the May 6, 2024, amendments to 40 CFR pt. 63, subp. RRRRR (89 FR 16408) (Taconite MACT amendments) for a period of two years beyond the Taconite MACT amendments' relevant compliance dates. This exemption applies to all compliance deadlines established under the Taconite MACT amendments, with each such deadline extended by two years from the date originally required for such deadline. The effect of this exemption is that, during each such 2-year period, the Permittee is subject to the emissions and compliance obligations that they are currently subject to under 40 CFR pt. 63, subp. RRRRR as that standard existed prior to the Taconite MACT amendments. A copy of the presidential proclamation, as published in the Federal Register on July 23, 2025 (90 FR 34743), is included in Appendix O. [40 CFR 63.4(a)(1), 40 CFR 63.6(j), 40 CFR 63.6(a)(1)(ii), 40 CFR 63.6920(l), 40 CFR 63.6930(b), 40 CFR 63.7, Minn. R. 7011.2015, subp. 3(A), Minn. R. 7011.8030, Minn. R. 7017.2020, subp. 1]
6.39.13	Hydrogen fluoride: If the Permittee elects to demonstrate compliance with the hydrogen fluoride emission limit with performance testing, the Permittee must conduct an initial performance test: due no later than 180 days after March 8, 2027 (September 4, 2027) and at a minimum of every 30 months thereafter to measure emissions. Performance tests conducted between March 6, 2024 and 180 days after the corresponding compliance date (September 4, 2027) can be used for initial compliance demonstration, provided the tests meet the initial performance testing requirements of 40 CFR pt. 63, subp. RRRRR. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 26A, or other method approved by MPCA in the performance test plan approval. Each hydrogen fluoride performance test must follow the test methods and procedures in 40 CFR 63.9621(d)(1) through (9). Testing conducted during the 60 days prior to a performance test due date will not reset the due date for future testing. Testing conducted more than 60 days prior to the specified due date satisfies this test due date requirement but will reset future performance test due dates based on the most recent performance test date. Under authority provided in Section 112(i)(4) of the Clean Air Act (42 U.S.C. 7412(i)(4)) and according to Proclamation 10958 of July 17, 2025, the Permittee is exempt from compliance with the May 6, 2024, amendments to 40 CFR pt. 63, subp. RRRRR (89 FR 16408) (Taconite MACT amendments) for a period of two years beyond the Taconite MACT amendments' relevant compliance dates. This exemption applies to all compliance deadlines established under the Taconite MACT amendments, with each such deadline extended by two years from the date originally required for such deadline. The effect of this exemption is that, during each such 2-year period, the Permittee is subject to the emissions and compliance obligations that they are currently subject to under 40 CFR pt. 63, subp. RRRRR as that standard existed prior to the Taconite MACT amendments. A copy of the presidential proclamation, as published in the Federal Register on July 23, 2025 (90 FR 34743), is included in Appendix O. [40 CFR 63.4(a)(1), 40 CFR 63.6(j), 40 CFR 63.6(a)(1)(ii), 40 CFR 63.6920(l), 40 CFR 63.6930(b), 40 CFR 63.7, Minn. R. 7011.2015, subp. 3(A), Minn. R. 7011.8030, Minn. R. 7017.2020, subp. 1]
EQUI 37	L5 Grate Discharge
6.40.1	Filterable Particulate Matter: The Permittee must conduct a performance test due 180 days after

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	permit issuance and every 60 months thereafter to measure emissions. The first test is due by the date specified above and all subsequent tests must be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test must be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5, 5D, 17, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. NESHAP RRRRR: Each Method 5, 5D, or 17 performance test must consist of three separate runs. Each run must be conducted for a minimum of 1 hour. The average particulate matter concentration from the three runs will be used to determine compliance, as shown in Equation 1 of 40 CFR Section 63.9621. The Permittee must use the results of this performance test to determine the flow-weighted mean concentration of filterable particulate matter emissions following the procedures in 40 CFR Section 63.9621(b)(3). [40 CFR 63.7, 40 CFR 63.9630(c), 40 CFR 63.9634(b), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A), Minn. R. 7017.2020, subp. 1]
6.40.2	Filterable Particulate Matter: The Permittee must submit a performance test notification: Due 60 calendar days before the performance test required by 40 CFR pt. 63, subp. RRRRR is scheduled to begin. [40 CFR 63.7(b), 40 CFR 63.9640(d), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A)]
6.40.3	Filterable Particulate Matter: The Permittee must submit the performance test results: Due 60 days after the completion of each performance test required by 40 CFR pt. 63, subp. RRRRR, following the procedures specified in 40 CFR Section 63.9641(f)(1) through (3). [40 CFR 63.9641(f), Minn. R. 7011.8030]
6.40.4	Particulate Matter: The Permittee shall conduct a performance test due before 180 days after permit issuance and every 60 months thereafter to verify the emission factor of filterable particulate matter and condensable particulate matter in lb/long ton pellets and lb/hr. The first test is due by the date specified above and all subsequent tests shall be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5 and 202, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7017.2020, subp. 1, Minn. R. 7019.3050, subp. C]
EQUI 41	L5 Pellet Cooler Vent Stack
6.41.1	Particulate Matter: The Permittee shall conduct a performance test due before 11/7/2026 and every 30 months thereafter to measure emissions. The first test is due by the date specified above and all subsequent tests shall be completed every 30

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	months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5 and 202, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7017.2020, subp. 1]
6.41.2	Opacity: The Permittee shall conduct a performance test due before 11/7/2026 and every 30 months thereafter to measure opacity. The first test is due by the date specified above and all subsequent tests shall be completed every 30 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 9, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7017.2020, subp. 1]
EQUI 48	Step III Coarse Crusher
6.42.1	Filterable Particulate Matter: The Permittee must conduct a performance test due 180 days after permit issuance and every 60 months thereafter to measure emissions. The first test is due by the date specified above and all subsequent tests must be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test must be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5, 5D, 17, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. NESHAP RRRRR: Each Method 5, 5D, or 17 performance test must consist of three separate runs. Each run must be conducted for a minimum of 1 hour. The average particulate matter concentration from the three runs will be used to determine compliance, as shown in Equation 1 of 40 CFR Section 63.9621. The Permittee must use the results of this performance test to determine the flow-weighted mean concentration of filterable particulate matter emissions following the procedures in 40 CFR Section 63.9621(b)(3). [40 CFR 63.7, 40 CFR 63.9630(c), 40 CFR 63.9634(b), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A), Minn. R. 7017.2020, subp. 1]

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6.42.2	Filterable Particulate Matter: The Permittee must submit a performance test notification: Due 60 calendar days before the performance test required by 40 CFR pt. 63, subp. RRRRR is scheduled to begin. [40 CFR 63.7(b), 40 CFR 63.9640(d), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A)]
6.42.3	Filterable Particulate Matter: The Permittee must submit the performance test results: Due 60 days after the completion of each performance test required by 40 CFR pt. 63, subp. RRRRR, following the procedures specified in 40 CFR Section 63.9641(f)(1) through (3). [40 CFR 63.9641(f), Minn. R. 7011.8030]
6.42.4	Particulate Matter: The Permittee shall conduct a performance test due 180 days after permit issuance and every 60 months thereafter to verify the emission factor of filterable particulate matter and condensable particulate matter in lb/long ton crude ore and lb/hr. The first test is due by the date specified above and all subsequent tests shall be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5 and 202, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7017.2020, subp. 1, Minn. R. 7019.3050, subp. C]
EQUI 52	Conveyor Transfer 005 Feed
6.43.1	PM < 10 micron: The Permittee shall conduct an initial performance test due 180 calendar days after permit issuance and at a minimum every 60 months thereafter to measure emissions. The Commissioner will set the subsequent test frequency as stated in a Notice of Compliance (NOC) or Notice of Verification (NOV) letter with review of the initial performance test. Subsequent tests shall be completed no less than every 60-months by the due date (month and day) based on the initial test date or more frequently as stated in the NOC/NOV letter. If the Commissioner sets a test frequency at less than every 60 months, the Permittee must apply for an administrative amendment to incorporate the prescribed test frequency into the permit. A major amendment is required to reduce the test frequency once set in the permit. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to a performance test due date will not reset the due date for future testing. Testing conducted more than 60 days prior to the specified due date satisfies this test due date requirement but will reset future performance test due dates based on the most recent performance test date. [Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
6.43.2	Particulate Matter: The Permittee shall conduct an initial performance test due 180 calendar days after permit issuance and at a minimum every 60 months thereafter to measure emissions.

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	The Commissioner will set the subsequent test frequency as stated in a Notice of Compliance (NOC) or Notice of Verification (NOV) letter with review of the initial performance test. Subsequent tests shall be completed no less than every 60-months by the due date (month and day) based on the initial test date or more frequently as stated in the NOC/NOV letter. If the Commissioner sets a test frequency at less than every 60 months, the Permittee must apply for an administrative amendment to incorporate the prescribed test frequency into the permit. A major amendment is required to reduce the test frequency once set in the permit. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5 and 202, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to a performance test due date will not reset the due date for future testing. Testing conducted more than 60 days prior to the specified due date satisfies this test due date requirement but will reset future performance test due dates based on the most recent performance test date. [Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
EQUI 53	Conveyor Transfer 005 Discharge
6.44.1	PM < 10 micron: The Permittee shall conduct an initial performance test due 180 calendar days after permit issuance and at a minimum every 60 months thereafter to measure emissions. The Commissioner will set the subsequent test frequency as stated in a Notice of Compliance (NOC) or Notice of Verification (NOV) letter with review of the initial performance test. Subsequent tests shall be completed no less than every 60-months by the due date (month and day) based on the initial test date or more frequently as stated in the NOC/NOV letter. If the Commissioner sets a test frequency at less than every 60 months, the Permittee must apply for an administrative amendment to incorporate the prescribed test frequency into the permit. A major amendment is required to reduce the test frequency once set in the permit. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 201A and 202, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to a performance test due date will not reset the due date for future testing. Testing conducted more than 60 days prior to the specified due date satisfies this test due date requirement but will reset future performance test due dates based on the most recent performance test date. [Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
6.44.2	Particulate Matter: The Permittee shall conduct an initial performance test due 180 calendar days after permit issuance and at a minimum every 60 months thereafter to measure emissions. The Commissioner will set the subsequent test frequency as stated in a Notice of Compliance (NOC) or Notice of Verification (NOV) letter with review of the initial performance test. Subsequent tests shall be completed no less than every 60-months by the due date (month and day) based on the initial test date or more frequently as stated in the NOC/NOV letter.

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	If the Commissioner sets a test frequency at less than every 60 months, the Permittee must apply for an administrative amendment to incorporate the prescribed test frequency into the permit. A major amendment is required to reduce the test frequency once set in the permit. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5 and 202, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to a performance test due date will not reset the due date for future testing. Testing conducted more than 60 days prior to the specified due date satisfies this test due date requirement but will reset future performance test due dates based on the most recent performance test date. [Minn. R. 7017.2020, subp. 1, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
EQUI 97	L6 Grate Discharge
6.45.1	Filterable Particulate Matter: The Permittee must conduct a performance test due after 5/9/2029 and every 60 months thereafter to measure emissions. The first test is due by the date specified above and all subsequent tests must be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test must be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5, 5D, 17, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. NESHAP RRRRR: Each Method 5, 5D, or 17 performance test must consist of three separate runs. Each run must be conducted for a minimum of 1 hour. The average particulate matter concentration from the three runs will be used to determine compliance, as shown in Equation 1 of 40 CFR Section 63.9621. The Permittee must use the results of this performance test to determine the flow-weighted mean concentration of filterable particulate matter emissions following the procedures in 40 CFR Section 63.9621(b)(3). [40 CFR 63.7, 40 CFR 63.9630(c), 40 CFR 63.9634(b), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A), Minn. R. 7017.2020, subp. 1]
6.45.2	Filterable Particulate Matter: The Permittee must submit a performance test notification: Due 60 calendar days before the performance test required by 40 CFR pt. 63, subp. RRRRR is scheduled to begin. [40 CFR 63.7(b), 40 CFR 63.9640(d), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A)]
6.45.3	Filterable Particulate Matter: The Permittee must submit the performance test results: Due 60 days after the completion of each performance test required by 40 CFR pt. 63, subp. RRRRR, following the procedures specified in 40 CFR Section 63.9641(f)(1) through (3). [40 CFR 63.9641(f), Minn. R. 7011.8030]
6.45.4	Particulate Matter: The Permittee shall conduct a performance test due before 5/9/2029 and every 60 months thereafter to verify the emission factor of filterable particulate matter and condensable particulate matter in lb/long ton pellets and lb/hr.

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	The first test is due by the date specified above and all subsequent tests shall be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5 and 202, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7017.2020, subp. 1, Minn. R. 7019.3050, subp. C]
EQUI 146	L3 Rotary Kiln
6.46.1	Filterable Particulate Matter: The Permittee must conduct a performance test due before 11/8/2026 and every 30 months thereafter to measure emissions. The first test is due by the date specified above and all subsequent tests must be completed every 30 months thereafter by the due date (month and day) and as described below. The performance test must be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5, 5D, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. NESHAP RRRRR: Each Method 5 or 5D performance test must consist of three separate runs. Each run must be conducted for a minimum of 1 hour. The average particulate matter concentration from the three runs will be used to determine compliance, as shown in Equation 1 of 40 CFR Section 63.9621. [40 CFR 63.7, 40 CFR 63.9630(b), 40 CFR 63.9634(c)(2), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A), Minn. R. 7017.2020, subp. 1]
6.46.2	Filterable Particulate Matter: The Permittee must submit a performance test notification: Due 60 calendar days before the performance test required by 40 CFR pt. 63, subp. RRRRR is scheduled to begin. [40 CFR 63.7(b), 40 CFR 63.9640(d), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A)]
6.46.3	Filterable Particulate Matter: The Permittee must submit the performance test results: Due 60 days after the completion of each performance test required by 40 CFR pt. 63, subp. RRRRR, following the procedures specified in 40 CFR Section 63.9641(f)(1) through (3). [40 CFR 63.9641(f), Minn. R. 7011.8030]
6.46.4	The Permittee must submit a semiannual compliance report: Due semiannually, by the 31st of January and July. The semiannual compliance reports must include the information in 40 CFR Section 63.9641(b)(1) through (8), as applicable. [40 CFR 63.9641(a) & (b), Minn. R. 7011.8030]
6.46.5	PM < 10 micron: The Permittee shall conduct a performance test due before 11/8/2026 and every 30 months thereafter to verify the emission factor of PM < 10 micron in lb/long ton pellets and lb/hr. The first test is due by the date specified above and all subsequent tests shall be completed every 30 months thereafter by the due date (month and day) and as described below. The performance test

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	shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Method 202, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7007.0800, subp. 2(B), Minn. R. 7017.2020, subp. 1]
6.46.6	PM < 2.5 micron: The Permittee shall conduct a performance test due before 11/8/2026 and every 30 months thereafter to verify the emission factor of PM < 2.5 micron in lb/long ton pellets and lb/hr. The first test is due by the date specified above and all subsequent tests shall be completed every 30 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Method and 202, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7007.0800, subp. 2(B), Minn. R. 7017.2020, subp. 1]
6.46.7	Particulate Matter: The Permittee shall conduct a performance test due before 11/8/2026 and every 30 months thereafter to measure emissions. The first test is due by the date specified above and all subsequent tests shall be completed every 30 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5 and 202, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7007.0800, subp. 2(B), Minn. R. 7017.2020, subp. 1]
6.46.8	Carbon Monoxide: The Permittee shall conduct a performance test due before 10/16/2028 and every 60 months thereafter to measure emissions. The first test is due by the date specified above and all subsequent tests shall be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 10, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter.

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	Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7017.2020, subp. 1, Title I Condition: 40 CFR 52.21(j)(BACT) and Minn. R. 7007.3000]
6.46.9	Volatile Organic Compounds: The Permittee shall conduct a performance test due before 10/16/2028 and every 60 months thereafter to measure emissions. The first test is due by the date specified above and all subsequent tests shall be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 25A, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7017.2020, subp. 1, Title I Condition: 40 CFR pt. 52, 21(j)(BACT) and Minn. R. 7007.3000]
6.46.10	Fluorides: The Permittee shall conduct a performance test due before 10/16/2028 and every 60 months thereafter to measure emissions. The first test is due by the date specified above and all subsequent tests shall be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Method 18, 320, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7017.2020, subp. 1, Title I Condition: 40 CFR 52.21(j)(BACT) and Minn. R. 7007.3000]
6.46.11	Mercury: The Permittee shall conduct a performance test due before 6/17/2030 and every 60 months thereafter to verify the emission factor of mercury in lb/hour The first test is due by the date specified above and all subsequent tests shall be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Method 29 or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7017.2020, subp. 1, Minn. R. 7019.3050, subp. E(5)]

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6.46.12	Mercury: If the Permittee elects to demonstrate compliance with the mercury emission limit with performance testing, the Permittee must conduct an initial performance test: due no later than 180 days after March 8, 2027 (September 4, 2027) and at a minimum of every 30 months thereafter to measure emissions. Performance tests conducted between March 6, 2024 and 180 days after the corresponding compliance date (September 4, 2027) can be used for initial compliance demonstration, provided the tests meet the initial performance testing requirements of 40 CFR pt. 63, subp. RRRRR. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 29, 30B, or other method approved by MPCA in the performance test plan approval. Each mercury performance test must follow the test methods and procedures in 40 CFR 63.9621(d)(1) through (9). Testing conducted during the 60 days prior to a performance test due date will not reset the due date for future testing. Testing conducted more than 60 days prior to the specified due date satisfies this test due date requirement but will reset future performance test due dates based on the most recent performance test date. Under authority provided in Section 112(i)(4) of the Clean Air Act (42 U.S.C. 7412(i)(4)) and according to Proclamation 10958 of July 17, 2025, the Permittee is exempt from compliance with the May 6, 2024, amendments to 40 CFR pt. 63, subp. RRRRR (89 FR 16408) (Taconite MACT amendments) for a period of two years beyond the Taconite MACT amendments' relevant compliance dates. This exemption applies to all compliance deadlines established under the Taconite MACT amendments, with each such deadline extended by two years from the date originally required for such deadline. The effect of this exemption is that, during each such 2-year period, the Permittee is subject to the emissions and compliance obligations that they are currently subject to under 40 CFR pt. 63, subp. RRRRR as that standard existed prior to the Taconite MACT amendments. A copy of the presidential proclamation, as published in the Federal Register on July 23, 2025 (90 FR 34743), is included in Appendix O. [40 CFR 63.4(a)(1), 40 CFR 63.6(j), 40 CFR 63.6(a)(1)(ii), 40 CFR 63.6920(k)(1), 40 CFR 63.6930(b), 40 CFR 63.7, Minn. R. 7011.2015, subp. 3(A), Minn. R. 7011.8030, Minn. R. 7017.2020, subp. 1]
6.46.13	Hydrogen Chloride: If the Permittee elects to demonstrate compliance with the mercury emission limit with performance testing, the Permittee must conduct an initial performance test: due no later than 180 days after March 8, 2027 (September 4, 2027) and at a minimum of every 30 months thereafter to measure emissions. Performance tests conducted between March 6, 2024 and 180 days after the corresponding compliance date (September 4, 2027) can be used for initial compliance demonstration, provided the tests meet the initial performance testing requirements of 40 CFR pt. 63, subp. RRRRR. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 26A, or other method approved by MPCA in the performance test plan approval. Each hydrogen chloride performance test must follow the test methods and procedures in 40 CFR 63.9621(d)(1) through (9). Testing conducted during the 60 days prior to a performance test due date will not reset the due date for future testing. Testing conducted more than 60 days prior to the specified due date satisfies this test due date requirement but will reset future performance test due dates based on the most recent

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	performance test date. Under authority provided in Section 112(i)(4) of the Clean Air Act (42 U.S.C. 7412(i)(4)) and according to Proclamation 10958 of July 17, 2025, the Permittee is exempt from compliance with the May 6, 2024, amendments to 40 CFR pt. 63, subp. RRRRR (89 FR 16408) (Taconite MACT amendments) for a period of two years beyond the Taconite MACT amendments' relevant compliance dates. This exemption applies to all compliance deadlines established under the Taconite MACT amendments, with each such deadline extended by two years from the date originally required for such deadline. The effect of this exemption is that, during each such 2-year period, the Permittee is subject to the emissions and compliance obligations that they are currently subject to under 40 CFR pt. 63, subp. RRRRR as that standard existed prior to the Taconite MACT amendments. A copy of the presidential proclamation, as published in the Federal Register on July 23, 2025 (90 FR 34743), is included in Appendix O. [40 CFR 63.4(a)(1), 40 CFR 63.6(j), 40 CFR 63.6(a)(1)(ii), 40 CFR 63.6920(l), 40 CFR 63.6930(b), 40 CFR 63.7, Minn. R. 7011.2015, subp. 3(A), Minn. R. 7011.8030, Minn. R. 7017.2020, subp. 1]
6.46.14	Hydrogen fluoride: If the Permittee elects to demonstrate compliance with the hydrogen fluoride emission limit with performance testing, the Permittee must conduct an initial performance test: due no later than 180 days after March 8, 2027 (September 4, 2027) and at a minimum of every 30 months thereafter to measure emissions. Performance tests conducted between March 6, 2024 and 180 days after the corresponding compliance date (September 4, 2027) can be used for initial compliance demonstration, provided the tests meet the initial performance testing requirements of 40 CFR pt. 63, subp. RRRRR. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 26A, or other method approved by MPCA in the performance test plan approval. Each hydrogen fluoride performance test must follow the test methods and procedures in 40 CFR 63.9621(d)(1) through (9). Testing conducted during the 60 days prior to a performance test due date will not reset the due date for future testing. Testing conducted more than 60 days prior to the specified due date satisfies this test due date requirement but will reset future performance test due dates based on the most recent performance test date. Under authority provided in Section 112(i)(4) of the Clean Air Act (42 U.S.C. 7412(i)(4)) and according to Proclamation 10958 of July 17, 2025, the Permittee is exempt from compliance with the May 6, 2024, amendments to 40 CFR pt. 63, subp. RRRRR (89 FR 16408) (Taconite MACT amendments) for a period of two years beyond the Taconite MACT amendments' relevant compliance dates. This exemption applies to all compliance deadlines established under the Taconite MACT amendments, with each such deadline extended by two years from the date originally required for such deadline. The effect of this exemption is that, during each such 2-year period, the Permittee is subject to the emissions and compliance obligations that they are currently subject to under 40 CFR pt. 63, subp. RRRRR as that standard existed prior to the Taconite MACT amendments. A copy of the presidential proclamation, as published in the Federal Register on July 23, 2025 (90 FR 34743), is included in Appendix O. [40 CFR 63.4(a)(1), 40 CFR 63.6(j), 40 CFR 63.6(a)(1)(ii), 40 CFR 63.6920(l), 40 CFR 63.6930(b), 40 CFR 63.7, Minn. R. 7011.2015, subp. 3(A), Minn. R. 7011.8030, Minn. R. 7017.2020, subp. 1]
EQUI 178	L7 Grate Discharge
6.47.1	Filterable Particulate Matter: The Permittee must conduct a performance test due 180 days after permit issuance and every 60 months thereafter to measure emissions.

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	The first test is due by the date specified above and all subsequent tests must be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test must be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5, 5D, 17, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. NESHAP RRRRR: Each Method 5, 5D, or 17 performance test must consist of three separate runs. Each run must be conducted for a minimum of 1 hour. The average particulate matter concentration from the three runs will be used to determine compliance, as shown in Equation 1 of 40 CFR 63.9621. The Permittee must use the results of this performance test to determine the flow-weighted mean concentration of filterable particulate matter emissions following the procedures in 40 CFR 63.9621(b)(3). [40 CFR 63.7, 40 CFR 63.9630(c), 40 CFR 63.9634(b), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A), Minn. R. 7017.2020, subp. 1]
6.47.2	Filterable Particulate Matter: The Permittee must submit a performance test notification: Due 60 calendar days before the performance test required by 40 CFR pt. 63, subp. RRRRR is scheduled to begin. [40 CFR 63.7(b), 40 CFR 63.9640(d), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A)]
6.47.3	Filterable Particulate Matter: The Permittee must submit the performance test results: Due 60 days after the completion of each performance test required by 40 CFR pt. 63, subp. RRRRR, following the procedures specified in 40 CFR 63.9641(f)(1) through (3). [40 CFR 63.9641(f), Minn. R. 7011.8030]
6.47.4	Particulate Matter: The Permittee shall conduct a performance test due before 180 days after permit issuance and every 60 months thereafter to verify the emission factor of filterable particulate matter and condensable particulate matter in lb/long ton pellets and lb/hr. The first test is due by the date specified above and all subsequent tests shall be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5 and 202, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7017.2020, subp. 1, Minn. R. 7019.3050, subp. C]
EQUI 179	L7 Rotary Kiln
6.48.1	Filterable Particulate Matter: The Permittee must conduct a performance test due before 11/7/2027 and every 30 months thereafter to measure emissions. The first test is due by the date specified above and all subsequent tests must be completed every 30 months thereafter by the due date (month and day) and as described below. The performance test must be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the

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	operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5, 5D, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. NESHAP RRRRR: Each Method 5 or 5D performance test must consist of three separate runs. Each run must be conducted for a minimum of 1 hour. The average particulate matter concentration from the three runs will be used to determine compliance, as shown in Equation 1 of 40 CFR Section 63.9621. [40 CFR 63.7, 40 CFR 63.9630(b), 40 CFR 63.9634(c)(2), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A), Minn. R. 7017.2020, subp. 1]
6.48.2	Filterable Particulate Matter: The Permittee must submit a performance test notification: Due 60 calendar days before the performance test required by 40 CFR pt. 63, subp. RRRRR is scheduled to begin. [40 CFR 63.7(b), 40 CFR 63.9640(d), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A)]
6.48.3	Filterable Particulate Matter: The Permittee must submit the performance test results: Due 60 days after the completion of each performance test required by 40 CFR pt. 63, subp. RRRRR, following the procedures specified in 40 CFR Section 63.9641(f)(1) through (3). [40 CFR 63.9641(f), Minn. R. 7011.8030]
6.48.4	The Permittee must submit a semiannual compliance report: Due semiannually, by the 31st of January and July. The semiannual compliance reports must include the information in 40 CFR Section 63.9641(b)(1) through (8), as applicable. [40 CFR 63.9641(a) & (b), Minn. R. 7011.8030]
6.48.5	PM < 10 micron: The Permittee shall conduct a performance test due before 11/7/2027 and every 30 months thereafter to verify the emission factor of PM < 10 micron in lb/long ton pellets and lb/hr. The first test is due by the date specified above and all subsequent tests shall be completed every 30 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Method 202, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7007.0800, subp. 2(B), Minn. R. 7017.2020, subp. 1]
6.48.6	PM < 2.5 micron: The Permittee shall conduct a performance test due before 11/7/2027 and every 30 months thereafter to verify the emission factor of PM < 2.5 micron in lb/long ton pellets and lb/hr. The first test is due by the date specified above and all subsequent tests shall be completed every 30 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Method and 202, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test

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	due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7007.0800, subp. 2(B), Minn. R. 7017.2020, subp. 1]
6.48.7	Particulate Matter: The Permittee shall conduct a performance test due before 11/7/2027 and every 30 months thereafter to measure emissions. The first test is due by the date specified above and all subsequent tests shall be completed every 30 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5 and 202, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7007.0800, subp. 2(B), Minn. R. 7017.2020, subp. 1]
6.48.8	Carbon Monoxide: The Permittee shall conduct a performance test due before 4/26/2029 and every 60 months thereafter to measure emissions. The first test is due by the date specified above and all subsequent tests shall be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 10, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7017.2020, subp. 1, Title I Condition: 40 CFR 52.21(j)(BACT) and Minn. R. 7007.3000]
6.48.9	Volatile Organic Compounds: The Permittee shall conduct a performance test due before 4/26/2029 and every 60 months thereafter to measure emissions. The first test is due by the date specified above and all subsequent tests shall be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 25A, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7017.2020, subp. 1, Title I Condition: 40 CFR pt. 52, 21(j)(BACT) and Minn. R. 7007.3000]

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6.48.10	Fluorides: The Permittee shall conduct a performance test due before 4/26/2029 and every 60 months thereafter to measure emissions. The first test is due by the date specified above and all subsequent tests shall be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Method 18, 320, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7017.2020, subp. 1, Title I Condition: 40 CFR 52.21(j)(BACT) and Minn. R. 7007.3000]
6.48.11	Mercury: If the Permittee elects to demonstrate compliance with the mercury emission limit with performance testing, the Permittee must conduct an initial performance test: due no later than 180 days after March 8, 2027 (September 4, 2027) and at a minimum of every 30 months thereafter to measure emissions. Performance tests conducted between March 6, 2024 and 180 days after the corresponding compliance date (September 4, 2027) can be used for initial compliance demonstration, provided the tests meet the initial performance testing requirements of 40 CFR pt. 63, subp. RRRRR. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 29, 30B, or other method approved by MPCA in the performance test plan approval. Each mercury performance test must follow the test methods and procedures in 40 CFR 63.9621(d)(1) through (9). Testing conducted during the 60 days prior to a performance test due date will not reset the due date for future testing. Testing conducted more than 60 days prior to the specified due date satisfies this test due date requirement but will reset future performance test due dates based on the most recent performance test date. Under authority provided in Section 112(i)(4) of the Clean Air Act (42 U.S.C. 7412(i)(4)) and according to Proclamation 10958 of July 17, 2025, the Permittee is exempt from compliance with the May 6, 2024, amendments to 40 CFR pt. 63, subp. RRRRR (89 FR 16408) (Taconite MACT amendments) for a period of two years beyond the Taconite MACT amendments' relevant compliance dates. This exemption applies to all compliance deadlines established under the Taconite MACT amendments, with each such deadline extended by two years from the date originally required for such deadline. The effect of this exemption is that, during each such 2-year period, the Permittee is subject to the emissions and compliance obligations that they are currently subject to under 40 CFR pt. 63, subp. RRRRR as that standard existed prior to the Taconite MACT amendments. A copy of the presidential proclamation, as published in the Federal Register on July 23, 2025 (90 FR 34743), is included in Appendix O. [40 CFR 63.4(a)(1), 40 CFR 63.6(j), 40 CFR 63.6(a)(1)(ii), 40 CFR 63.6920(k)(1), 40 CFR 63.6930(b), 40 CFR 63.7, Minn. R. 7011.2015, subp. 3(A), Minn. R. 7011.8030, Minn. R. 7017.2020, subp. 1]
6.48.12	Hydrogen Chloride: If the Permittee elects to demonstrate compliance with the mercury emission limit with performance testing, the Permittee must conduct an initial performance test: due no later than 180 days after March 8, 2027 (September 4, 2027) and at a minimum of every 30 months

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	thereafter to measure emissions. Performance tests conducted between March 6, 2024 and 180 days after the corresponding compliance date (September 4, 2027) can be used for initial compliance demonstration, provided the tests meet the initial performance testing requirements of 40 CFR pt. 63, subp. RRRRR. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 26A, or other method approved by MPCA in the performance test plan approval. Each hydrogen chloride performance test must follow the test methods and procedures in 40 CFR 63.9621(d)(1) through (9). Testing conducted during the 60 days prior to a performance test due date will not reset the due date for future testing. Testing conducted more than 60 days prior to the specified due date satisfies this test due date requirement but will reset future performance test due dates based on the most recent performance test date. Under authority provided in Section 112(i)(4) of the Clean Air Act (42 U.S.C. 7412(i)(4)) and according to Proclamation 10958 of July 17, 2025, the Permittee is exempt from compliance with the May 6, 2024, amendments to 40 CFR pt. 63, subp. RRRRR (89 FR 16408) (Taconite MACT amendments) for a period of two years beyond the Taconite MACT amendments' relevant compliance dates. This exemption applies to all compliance deadlines established under the Taconite MACT amendments, with each such deadline extended by two years from the date originally required for such deadline. The effect of this exemption is that, during each such 2-year period, the Permittee is subject to the emissions and compliance obligations that they are currently subject to under 40 CFR pt. 63, subp. RRRRR as that standard existed prior to the Taconite MACT amendments. A copy of the presidential proclamation, as published in the Federal Register on July 23, 2025 (90 FR 34743), is included in Appendix O. [40 CFR 63.4(a)(1), 40 CFR 63.6(j), 40 CFR 63.6(a)(1)(ii), 40 CFR 63.6920(l), 40 CFR 63.6930(b), 40 CFR 63.7, Minn. R. 7011.2015, subp. 3(A), Minn. R. 7011.8030, Minn. R. 7017.2020, subp. 1]
6.48.13	Hydrogen fluoride: If the Permittee elects to demonstrate compliance with the hydrogen fluoride emission limit with performance testing, the Permittee must conduct an initial performance test: due no later than 180 days after March 8, 2027 (September 4, 2027) and at a minimum of every 30 months thereafter to measure emissions. Performance tests conducted between March 6, 2024 and 180 days after the corresponding compliance date (September 4, 2027) can be used for initial compliance demonstration, provided the tests meet the initial performance testing requirements of 40 CFR pt. 63, subp. RRRRR. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 26A, or other method approved by MPCA in the performance test plan approval. Each hydrogen fluoride performance test must follow the test methods and procedures in 40 CFR 63.9621(d)(1) through (9). Testing conducted during the 60 days prior to a performance test due date will not reset the due date for future testing. Testing conducted more than 60 days prior to the specified due date satisfies this test due date requirement but will reset future performance test due dates based on the most recent performance test date. Under authority provided in Section 112(i)(4) of the Clean Air Act (42 U.S.C. 7412(i)(4)) and according

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	to Proclamation 10958 of July 17, 2025, the Permittee is exempt from compliance with the May 6, 2024, amendments to 40 CFR pt. 63, subp. RRRRR (89 FR 16408) (Taconite MACT amendments) for a period of two years beyond the Taconite MACT amendments' relevant compliance dates. This exemption applies to all compliance deadlines established under the Taconite MACT amendments, with each such deadline extended by two years from the date originally required for such deadline. The effect of this exemption is that, during each such 2-year period, the Permittee is subject to the emissions and compliance obligations that they are currently subject to under 40 CFR pt. 63, subp. RRRRR as that standard existed prior to the Taconite MACT amendments. A copy of the presidential proclamation, as published in the Federal Register on July 23, 2025 (90 FR 34743), is included in Appendix O. [40 CFR 63.4(a)(1), 40 CFR 63.6(j), 40 CFR 63.6(a)(1)(ii), 40 CFR 63.6920(l), 40 CFR 63.6930(b), 40 CFR 63.7, Minn. R. 7011.2015, subp. 3(A), Minn. R. 7011.8030, Minn. R. 7017.2020, subp. 1]
EQUI 196	SI 104 MMBtu Heating Boiler
6.49.1	Compliance Report: The Permittee must submit a 5-year compliance report: Due January 31, 2031, and every 60 months thereafter. The first compliance report must cover the period beginning on January 1, 2016, and ending on December 31, 2020. The first compliance report must be postmarked or submitted no later than January 31, 2021. Each subsequent compliance report must cover the applicable 5-year period from January 1 to December 31. Five-year compliance reports must be postmarked or submitted no later than January 31. The Permittee must include the information listed in 40 CFR 63.7550(c)(5)(i)-(iii), (xiv), and (xvii) in the report and must submit the report according to 40 CFR 63.7550(h)(3). [40 CFR 63.7550(a)-(b), 40 CFR 63.7550(c)(1), 40 CFR pt. 63, subp. DDDDD(Table 9), Minn. R. 7011.7050]
EQUI 197	SI 104 MMBtu Heating Boiler
6.50.1	Compliance Report: The Permittee must submit a 5-year compliance report: Due January 31, 2031, and every 60 months thereafter. The first compliance report must cover the period beginning on January 1, 2016, and ending on December 31, 2020. The first compliance report must be postmarked or submitted no later than January 31, 2021. Each subsequent compliance report must cover the applicable 5-year period from January 1 to December 31. Five-year compliance reports must be postmarked or submitted no later than January 31. The Permittee must include the information listed in 40 CFR 63.7550(c)(5)(i)-(iii), (xiv), and (xvii) in the report and must submit the report according to 40 CFR 63.7550(h)(3). [40 CFR 63.7550(a)-(b), 40 CFR 63.7550(c)(1), 40 CFR pt. 63, subp. DDDDD(Table 9), Minn. R. 7011.7050]
EQUI 198	SII 125 MMBtu Heating Boiler
6.51.1	Compliance Report: The Permittee must submit a 5-year compliance report: Due January 31, 2031, and every 60 months thereafter. The first compliance report must cover the period beginning on January 1, 2016, and ending on December 31, 2020. The first compliance report must be postmarked or submitted no later than January 31, 2021. Each subsequent compliance report must cover the applicable 5-year period from January 1 to December 31. Five-year compliance reports must be postmarked or submitted no later than January 31. The Permittee must include the information listed in 40 CFR 63.7550(c)(5)(i)-(iii), (xiv), and (xvii) in the report and must submit the report according to 40 CFR 63.7550(h)(3). [40 CFR 63.7550(a)-(b), 40 CFR 63.7550(c)(1), 40 CFR pt. 63, subp. DDDDD(Table 9), Minn. R. 7011.7050]
EQUI 199	SIII 153 MMBtu Heating Boiler
6.52.1	Compliance Report: The Permittee must submit a 5-year compliance report: Due January 31, 2031, and every 60 months thereafter. The first compliance report must cover the period beginning on January 1, 2016, and ending on December 31, 2020. The first compliance report must be postmarked

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	or submitted no later than January 31, 2021. Each subsequent compliance report must cover the applicable 5-year period from January 1 to December 31. Five-year compliance reports must be postmarked or submitted no later than January 31. The Permittee must include the information listed in 40 CFR 63.7550(c)(5)(i)-(iii), (xiv), and (xvii) in the report and must submit the report according to 40 CFR 63.7550(h)(3). [40 CFR 63.7550(a)-(b), 40 CFR 63.7550(c)(1), 40 CFR pt. 63, subp. DDDDD(Table 9), Minn. R. 7011.7050]
EQUI 200	SIII 153 MMBtu Heating Boiler
6.53.1	Compliance Report: The Permittee must submit a 5-year compliance report: Due January 31, 2031, and every 60 months thereafter. The first compliance report must cover the period beginning on January 1, 2016, and ending on December 31, 2020. The first compliance report must be postmarked or submitted no later than January 31, 2021. Each subsequent compliance report must cover the applicable 5-year period from January 1 to December 31. Five-year compliance reports must be postmarked or submitted no later than January 31. The Permittee must include the information listed in 40 CFR 63.7550(c)(5)(i)-(iii), (xiv), and (xvii) in the report and must submit the report according to 40 CFR 63.7550(h)(3). [40 CFR 63.7550(a)-(b), 40 CFR 63.7550(c)(1), 40 CFR pt. 63, subp. DDDDD(Table 9), Minn. R. 7011.7050]
6.53.2	Compliance Report: The Permittee must submit a 5-year compliance report: Due January 31, 2026, and every 60 months thereafter. The first compliance report must cover the period beginning on January 1, 2016, and ending on December 31, 2020. The first compliance report must be postmarked or submitted no later than January 31, 2021. Each subsequent compliance report must cover the applicable 5-year period from January 1 to December 31. Five-year compliance reports must be postmarked or submitted no later than January 31. The Permittee must include the information listed in 40 CFR 63.7550(c)(5)(i)-(iii), (xiv), and (xvii) in the report and must submit the report according to 40 CFR 63.7550(h)(3). [40 CFR 63.7550(a)-(b), 40 CFR 63.7550(c)(1), 40 CFR pt. 63, subp. DDDDD(Table 9), Minn. R. 7011.7050]
EQUI 201	24.6 MMBtu Boiler
6.54.1	Compliance Report: The Permittee must submit a 5-year compliance report: Due January 31, 2031, and every 60 months thereafter. The first compliance report must cover the period beginning on January 1, 2016, and ending on December 31, 2020. The first compliance report must be postmarked or submitted no later than January 31, 2021. Each subsequent compliance report must cover the applicable 5-year period from January 1 to December 31. Five-year compliance reports must be postmarked or submitted no later than January 31. The Permittee must include the information listed in 40 CFR 63.7550(c)(5)(i)-(iii), (xiv), and (xvii) in the report and must submit the report according to 40 CFR 63.7550(h)(3). [40 CFR 63.7550(a)-(b), 40 CFR 63.7550(c)(1), 40 CFR pt. 63, subp. DDDDD(Table 9), Minn. R. 7011.7050]
6.54.2	Compliance Report: The Permittee must submit a 5-year compliance report: Due January 31, 2031, and every 60 months thereafter. The first compliance report must cover the period beginning on January 1, 2016, and ending on December 31, 2020. The first compliance report must be postmarked or submitted no later than January 31, 2021. Each subsequent compliance report must cover the applicable 5-year period from January 1 to December 31. Five-year compliance reports must be postmarked or submitted no later than January 31. The Permittee must include the information listed in 40 CFR 63.7550(c)(5)(i)-(iii), (xiv), and (xvii) in the report and must submit the report according to 40 CFR 63.7550(h)(3). [40 CFR 63.7550(a)-(b), 40 CFR 63.7550(c)(1), 40 CFR pt. 63, subp. DDDDD(Table 9), Minn. R. 7011.7050]
EQUI 202	24.6 MMBtu Boiler

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6.55.1	Compliance Report: The Permittee must submit a 5-year compliance report: Due January 31, 2031, and every 60 months thereafter. The first compliance report must cover the period beginning on January 1, 2016, and ending on December 31, 2020. The first compliance report must be postmarked or submitted no later than January 31, 2021. Each subsequent compliance report must cover the applicable 5-year period from January 1 to December 31. Five-year compliance reports must be postmarked or submitted no later than January 31. The Permittee must include the information listed in 40 CFR 63.7550(c)(5)(i)-(iii), (xiv), and (xvii) in the report and must submit the report according to 40 CFR 63.7550(h)(3). [40 CFR 63.7550(a)-(b), 40 CFR 63.7550(c)(1), 40 CFR pt. 63, subp. DDDDD(Table 9), Minn. R. 7011.7050]
6.55.2	Compliance Report: The Permittee must submit a 5-year compliance report: Due January 31, 2026, and every 60 months thereafter. The first compliance report must cover the period beginning on January 1, 2016, and ending on December 31, 2020. The first compliance report must be postmarked or submitted no later than January 31, 2021. Each subsequent compliance report must cover the applicable 5-year period from January 1 to December 31. Five-year compliance reports must be postmarked or submitted no later than January 31. The Permittee must include the information listed in 40 CFR 63.7550(c)(5)(i)-(iii), (xiv), and (xvii) in the report and must submit the report according to 40 CFR 63.7550(h)(3). [40 CFR 63.7550(a)-(b), 40 CFR 63.7550(c)(1), 40 CFR pt. 63, subp. DDDDD(Table 9), Minn. R. 7011.7050]
EQUI 256	NOx CEMS at Line 3 Waste Gas Stack
6.56.1	Relative Accuracy Test Audit (RATA) Results Summary: due 30 days after end of each calendar quarter in which a RATA was conducted. [Minn. R. 7017.1180, subp. 3]
6.56.2	Cylinder Gas Audit (CGA) Results Summary: due 30 days after end of each calendar quarter in which a CGA was conducted. [Minn. R. 7017.1180, subp. 1]
6.56.3	The Permittee shall conduct CEMS cylinder gas audit (CGA): Due by the end of every second QA operating quarter (calendar quarter in which there are at least 168 unit operating hours) except that a CGA is not required during any quarter in which a RATA is performed. The initial CGA must be performed within 180 days following certification of the CEMS. The CGAs shall be conducted according to the procedures outlined in Minn. R. 7017.1170, subp 4a(A). If the monitored emission unit is not in operation on the CGA due date, the owner or operator has a grace period of 168 operating hours to perform the CGA. [Minn. R. 7017.1170, subp. 4a]
6.56.4	The Permittee shall conduct a relative accuracy test audit: Due by the end of every fourth QA operating quarter (calendar quarter in which there are at least 168 unit operating hours). RATAs shall be conducted and frequency may be reduced according to the procedures outlined in Minn. R. 7017.1170, subp. 5a. If the monitored emission unit is not in operation on the RATA due date, the owner or operator has a grace period of 720 operating hours to perform the RATA. [Minn. R. 7017.1170, subp. 5a]
EQUI 257	SO2 CEMS at Line 3 Waste Gas Stack
6.57.1	Relative Accuracy Test Audit (RATA) Results Summary: due 30 days after end of each calendar quarter in which a RATA was conducted. [Minn. R. 7017.1180, subp. 3]
6.57.2	Cylinder Gas Audit (CGA) Results Summary: due 30 days after end of each calendar quarter in which a CGA was conducted. [Minn. R. 7017.1180, subp. 1]
6.57.3	The Permittee shall conduct CEMS cylinder gas audit (CGA): Due by the end of every second QA operating quarter (calendar quarter in which there are at least 168 unit operating hours) except that a CGA is not required during any quarter in which a RATA is performed. The initial CGA must be performed within 180 days following certification of the CEMS. The CGAs shall be conducted according to the procedures outlined in Minn. R. 7017.1170, subp 4a(A). If the monitored emission

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	unit is not in operation on the CGA due date, the owner or operator has a grace period of 168 operating hours to perform the CGA. [Minn. R. 7017.1170, subp. 4a]
6.57.4	The Permittee shall conduct a relative accuracy test audit: Due by the end of every fourth QA operating quarter (calendar quarter in which there are at least 168 unit operating hours). RATAs shall be conducted and frequency may be reduced according to the procedures outlined in Minn. R. 7017.1170, subp. 5a. If the monitored emission unit is not in operation on the RATA due date, the owner or operator has a grace period of 720 operating hours to perform the RATA. [Minn. R. 7017.1170, subp. 5a]
EQUI 258	NOx CEMS at Line 5 Waste Gas Stack
6.58.1	Relative Accuracy Test Audit (RATA) Results Summary: due 30 days after end of each calendar quarter in which a RATA was conducted. [Minn. R. 7017.1180, subp. 3]
6.58.2	Cylinder Gas Audit (CGA) Results Summary: due 30 days after end of each calendar quarter in which a CGA was conducted. [Minn. R. 7017.1180, subp. 1]
6.58.3	The Permittee shall conduct CEMS cylinder gas audit (CGA): Due by the end of every second QA operating quarter (calendar quarter in which there are at least 168 unit operating hours) except that a CGA is not required during any quarter in which a RATA is performed. The initial CGA must be performed within 180 days following certification of the CEMS. The CGAs shall be conducted according to the procedures outlined in Minn. R. 7017.1170, subp 4a(A). If the monitored emission unit is not in operation on the CGA due date, the owner or operator has a grace period of 168 operating hours to perform the CGA. [Minn. R. 7017.1170, subp. 4a]
6.58.4	The Permittee shall conduct a relative accuracy test audit: Due by the end of every fourth QA operating quarter (calendar quarter in which there are at least 168 unit operating hours). RATAs shall be conducted and frequency may be reduced according to the procedures outlined in Minn. R. 7017.1170, subp. 5a. If the monitored emission unit is not in operation on the RATA due date, the owner or operator has a grace period of 720 operating hours to perform the RATA. [Minn. R. 7017.1170, subp. 5a]
EQUI 259	SO2 CEMS at Line 5 Waste Gas Stack (SV 127)
6.59.1	Relative Accuracy Test Audit (RATA) Results Summary: due 30 days after end of each calendar quarter in which a RATA was conducted. [Minn. R. 7017.1180, subp. 3]
6.59.2	Cylinder Gas Audit (CGA) Results Summary: due 30 days after end of each calendar quarter in which a CGA was conducted. [Minn. R. 7017.1180, subp. 1]
6.59.3	The Permittee shall conduct CEMS cylinder gas audit (CGA): Due by the end of every second QA operating quarter (calendar quarter in which there are at least 168 unit operating hours) except that a CGA is not required during any quarter in which a RATA is performed. The initial CGA must be performed within 180 days following certification of the CEMS. The CGAs shall be conducted according to the procedures outlined in Minn. R. 7017.1170, subp 4a(A). If the monitored emission unit is not in operation on the CGA due date, the owner or operator has a grace period of 168 operating hours to perform the CGA. [Minn. R. 7017.1170, subp. 4a]
6.59.4	The Permittee shall conduct a relative accuracy test audit: Due by the end of every fourth QA operating quarter (calendar quarter in which there are at least 168 unit operating hours). RATAs shall be conducted and frequency may be reduced according to the procedures outlined in Minn. R. 7017.1170, subp. 5a. If the monitored emission unit is not in operation on the RATA due date, the owner or operator has a grace period of 720 operating hours to perform the RATA. [Minn. R. 7017.1170, subp. 5a]
EQUI 260	SO2 CEMS at Line 6 Waste Gas Stack (SV 144)
6.60.1	Relative Accuracy Test Audit (RATA) Results Summary: due 30 days after end of each calendar quarter in which a RATA was conducted. [Minn. R. 7017.1180, subp. 3]
6.60.2	Cylinder Gas Audit (CGA) Results Summary: due 30 days after end of each calendar quarter in which a

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	CGA was conducted. [Minn. R. 7017.1180, subp. 1]
6.60.3	The Permittee shall conduct CEMS cylinder gas audit (CGA): Due by the end of every second QA operating quarter (calendar quarter in which there are at least 168 unit operating hours) except that a CGA is not required during any quarter in which a RATA is performed. The initial CGA must be performed within 180 days following certification of the CEMS. The CGAs shall be conducted according to the procedures outlined in Minn. R. 7017.1170, subp 4a(A). If the monitored emission unit is not in operation on the CGA due date, the owner or operator has a grace period of 168 operating hours to perform the CGA. [Minn. R. 7017.1170, subp. 4a]
6.60.4	The Permittee shall conduct a relative accuracy test audit: Due by the end of every fourth QA operating quarter (calendar quarter in which there are at least 168 unit operating hours). RATAs shall be conducted and frequency may be reduced according to the procedures outlined in Minn. R. 7017.1170, subp. 5a. If the monitored emission unit is not in operation on the RATA due date, the owner or operator has a grace period of 720 operating hours to perform the RATA. [Minn. R. 7017.1170, subp. 5a]
EQUI 261	NOx CEMS at Line 6 Waste Gas Stack (SV 144)
6.61.1	Relative Accuracy Test Audit (RATA) Results Summary: due 30 days after end of each calendar quarter in which a RATA was conducted. [Minn. R. 7017.1180, subp. 3]
6.61.2	Cylinder Gas Audit (CGA) Results Summary: due 30 days after end of each calendar quarter in which a CGA was conducted. [Minn. R. 7017.1180, subp. 1]
6.61.3	The Permittee shall conduct CEMS cylinder gas audit (CGA): Due by the end of every second QA operating quarter (calendar quarter in which there are at least 168 unit operating hours) except that a CGA is not required during any quarter in which a RATA is performed. The initial CGA must be performed within 180 days following certification of the CEMS. The CGAs shall be conducted according to the procedures outlined in Minn. R. 7017.1170, subp 4a(A). If the monitored emission unit is not in operation on the CGA due date, the owner or operator has a grace period of 168 operating hours to perform the CGA. [Minn. R. 7017.1170, subp. 4a]
6.61.4	The Permittee shall conduct a relative accuracy test audit: Due by the end of every fourth QA operating quarter (calendar quarter in which there are at least 168 unit operating hours). RATAs shall be conducted and frequency may be reduced according to the procedures outlined in Minn. R. 7017.1170, subp. 5a. If the monitored emission unit is not in operation on the RATA due date, the owner or operator has a grace period of 720 operating hours to perform the RATA. [Minn. R. 7017.1170, subp. 5a]
EQUI 262	SO2 CEMS at Line 7 Waste Gas Stack (SV 151)
6.62.1	Relative Accuracy Test Audit (RATA) Results Summary: due 30 days after end of each calendar quarter in which a RATA was conducted. [Minn. R. 7017.1180, subp. 3]
6.62.2	Cylinder Gas Audit (CGA) Results Summary: due 30 days after end of each calendar quarter in which a CGA was conducted. [Minn. R. 7017.1180, subp. 1]
6.62.3	The Permittee shall conduct CEMS cylinder gas audit (CGA): Due by the end of every second QA operating quarter (calendar quarter in which there are at least 168 unit operating hours) except that a CGA is not required during any quarter in which a RATA is performed. The initial CGA must be performed within 180 days following certification of the CEMS. The CGAs shall be conducted according to the procedures outlined in Minn. R. 7017.1170, subp 4a(A). If the monitored emission unit is not in operation on the CGA due date, the owner or operator has a grace period of 168 operating hours to perform the CGA. [Minn. R. 7017.1170, subp. 4a]
6.62.4	The Permittee shall conduct a relative accuracy test audit: Due by the end of every fourth QA operating quarter (calendar quarter in which there are at least 168 unit operating hours). RATAs shall be conducted and frequency may be reduced according to the procedures outlined in Minn. R. 7017.1170, subp. 5a. If the monitored emission unit is not in operation on the RATA due date, the

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	owner or operator has a grace period of 720 operating hours to perform the RATA. [Minn. R. 7017.1170, subp. 5a]
EQUI 263	NOx CEMS at Line 7 Waste Gas Stack (SV 151)
6.63.1	Relative Accuracy Test Audit (RATA) Results Summary: due 30 days after end of each calendar quarter in which a RATA was conducted. [Minn. R. 7017.1180, subp. 3]
6.63.2	Cylinder Gas Audit (CGA) Results Summary: due 30 days after end of each calendar quarter in which a CGA was conducted. [Minn. R. 7017.1180, subp. 1]
6.63.3	The Permittee shall conduct CEMS cylinder gas audit (CGA): Due by the end of every second QA operating quarter (calendar quarter in which there are at least 168 unit operating hours) except that a CGA is not required during any quarter in which a RATA is performed. The initial CGA must be performed within 180 days following certification of the CEMS. The CGAs shall be conducted according to the procedures outlined in Minn. R. 7017.1170, subp 4a(A). If the monitored emission unit is not in operation on the CGA due date, the owner or operator has a grace period of 168 operating hours to perform the CGA. [Minn. R. 7017.1170, subp. 4a]
6.63.4	The Permittee shall conduct a relative accuracy test audit: Due by the end of every fourth QA operating quarter (calendar quarter in which there are at least 168 unit operating hours). RATAs shall be conducted and frequency may be reduced according to the procedures outlined in Minn. R. 7017.1170, subp. 5a. If the monitored emission unit is not in operation on the RATA due date, the owner or operator has a grace period of 720 operating hours to perform the RATA. [Minn. R. 7017.1170, subp. 5a]
EQUI 264	SO2 CEMS at Line 4 Waste Gas Stack (SV 118)
6.64.1	Relative Accuracy Test Audit (RATA) Results Summary: due 30 days after end of each calendar quarter in which a RATA was conducted. [Minn. R. 7017.1180, subp. 3]
6.64.2	Cylinder Gas Audit (CGA) Results Summary: due 30 days after end of each calendar quarter in which a CGA was conducted. [Minn. R. 7017.1180, subp. 1]
6.64.3	The Permittee shall conduct CEMS cylinder gas audit (CGA): Due by the end of every second QA operating quarter (calendar quarter in which there are at least 168 unit operating hours) except that a CGA is not required during any quarter in which a RATA is performed. The initial CGA must be performed within 180 days following certification of the CEMS. The CGAs shall be conducted according to the procedures outlined in Minn. R. 7017.1170, subp 4a(A). If the monitored emission unit is not in operation on the CGA due date, the owner or operator has a grace period of 168 operating hours to perform the CGA. [Minn. R. 7017.1170, subp. 4a]
6.64.4	The Permittee shall conduct a relative accuracy test audit: Due by the end of every fourth QA operating quarter (calendar quarter in which there are at least 168 unit operating hours). RATAs shall be conducted and frequency may be reduced according to the procedures outlined in Minn. R. 7017.1170, subp. 5a. If the monitored emission unit is not in operation on the RATA due date, the owner or operator has a grace period of 720 operating hours to perform the RATA. [Minn. R. 7017.1170, subp. 5a]
EQUI 265	NOx CEMS at Line 4 Waste Gas Stack (SV 118)
6.65.1	Relative Accuracy Test Audit (RATA) Results Summary: due 30 days after end of each calendar quarter in which a RATA was conducted. [Minn. R. 7017.1180, subp. 3]
6.65.2	Cylinder Gas Audit (CGA) Results Summary: due 30 days after end of each calendar quarter in which a CGA was conducted. [Minn. R. 7017.1180, subp. 1]
6.65.3	The Permittee shall conduct CEMS cylinder gas audit (CGA): Due by the end of every second QA operating quarter (calendar quarter in which there are at least 168 unit operating hours) except that a CGA is not required during any quarter in which a RATA is performed. The initial CGA must be performed within 180 days following certification of the CEMS. The CGAs shall be conducted according to the procedures outlined in Minn. R. 7017.1170, subp 4a(A). If the monitored emission

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	unit is not in operation on the CGA due date, the owner or operator has a grace period of 168 operating hours to perform the CGA. [Minn. R. 7017.1170, subp. 4a]
6.65.4	The Permittee shall conduct a relative accuracy test audit: Due by the end of every fourth QA operating quarter (calendar quarter in which there are at least 168 unit operating hours). RATAs shall be conducted and frequency may be reduced according to the procedures outlined in Minn. R. 7017.1170, subp. 5a. If the monitored emission unit is not in operation on the RATA due date, the owner or operator has a grace period of 720 operating hours to perform the RATA. [Minn. R. 7017.1170, subp. 5a]
EQUI 267	L6 Pellet Cooler Vent Stack
6.66.1	Particulate Matter: The Permittee shall conduct a performance test due before 11/6/2027 and every 30 months thereafter to measure emissions. The first test is due by the date specified above and all subsequent tests shall be completed every 30 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5 and 202, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7017.2020, subp. 1]
6.66.2	Opacity: The Permittee shall conduct a performance test due before 11/6/2027 and every 30 months thereafter to measure opacity. The first test is due by the date specified above and all subsequent tests shall be completed every 30 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 9, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7017.2020, subp. 1]
EQUI 268	L7 Pellet Cooler Vent Stack
6.67.1	Particulate Matter: The Permittee shall conduct a performance test due before 11/7/2027 and every 30 months thereafter to measure emissions. The first test is due by the date specified above and all subsequent tests shall be completed every 30 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5 and 202, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test

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	due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7017.2020, subp. 1]
6.67.2	Opacity: The Permittee shall conduct a performance test due before 11/7/2027 and every 30 months thereafter to measure opacity. The first test is due by the date specified above and all subsequent tests shall be completed every 30 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 9, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7017.2020, subp. 1]
EQUI 279	L4 Rotary Kiln
6.68.1	Filterable Particulate Matter: The Permittee must conduct a performance test due before 180 days after permit issuance and every 30 months thereafter to measure emissions. The first test is due by the date specified above and all subsequent tests must be completed every 30 months thereafter by the due date (month and day) and as described below. The performance test must be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5, 5D, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. NESHAP RRRRR: Each Method 5 or 5D performance test must consist of three separate runs. Each run must be conducted for a minimum of 1 hour. The average particulate matter concentration from the three runs will be used to determine compliance, as shown in Equation 1 of 40 CFR Section 63.9621. [40 CFR 63.7, 40 CFR 63.9630(b), 40 CFR 63.9634(c)(2), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A), Minn. R. 7017.2020, subp. 1]
6.68.2	Filterable Particulate Matter: The Permittee must submit a performance test notification: Due 60 calendar days before the performance test required by 40 CFR pt. 63, subp. RRRRR is scheduled to begin. [40 CFR 63.7(b), 40 CFR 63.9640(d), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A)]
6.68.3	Filterable Particulate Matter: The Permittee must submit the performance test results: Due 60 days after the completion of each performance test required by 40 CFR pt. 63, subp. RRRRR, following the procedures specified in 40 CFR Section 63.9641(f)(1) through (3). [40 CFR 63.9641(f), Minn. R. 7011.8030]
6.68.4	The Permittee must submit a semiannual compliance report: Due semiannually, by the 31st of January

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	and July. The semiannual compliance reports must include the information in 40 CFR Section 63.9641(b)(1) through (8), as applicable. [40 CFR 63.9641(a) & (b), Minn. R. 7011.8030]
6.68.5	PM < 10 micron: The Permittee shall conduct a performance test due before 180 days after permit issuance and every 30 months thereafter to verify the emission factor of PM < 10 micron in lb/long ton pellets and lb/hr. The first test is due by the date specified above and all subsequent tests shall be completed every 30 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Method and 202, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7007.0800, subp. 2(B), Minn. R. 7017.2020, subp. 1]
6.68.6	PM < 2.5 micron: The Permittee shall conduct a performance test due before 180 days after permit issuance and every 30 months thereafter to verify the emission factor of PM < 2.5 micron in lb/long ton pellets and lb/hr. The first test is due by the date specified above and all subsequent tests shall be completed every 30 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 202, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7007.0800, subp. 2(B), Minn. R. 7017.2020, subp. 1]
6.68.7	Particulate Matter: The Permittee shall conduct a performance test due before 180 days after permit issuance and every 30 months thereafter to measure emissions. The first test is due by the date specified above and all subsequent tests shall be completed every 30 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5 and 202, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7007.0800, subp. 2(B), Minn. R. 7017.2020, subp. 1]
6.68.8	Carbon Monoxide: The Permittee shall conduct a performance test due before 10/17/2028 and every

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	60 months thereafter to measure emissions. The first test is due by the date specified above and all subsequent tests shall be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 10, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7017.2020, subp. 1, Title I Condition: 40 CFR 52.21(j)(BACT) and Minn. R. 7007.3000]
6.68.9	Volatile Organic Compounds: The Permittee shall conduct a performance test due before 10/17/2028 and every 60 months thereafter to measure emissions. The first test is due by the date specified above and all subsequent tests shall be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 25A, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7017.2020, subp. 1, Title I Condition: 40 CFR pt. 52, 21(j)(BACT) and Minn. R. 7007.3000]
6.68.10	Fluorides: The Permittee shall conduct a performance test due before 10/17/2028 and every 60 months thereafter to measure emissions. The first test is due by the date specified above and all subsequent tests shall be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Method 18, 320, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7017.2020, subp. 1, Title I Condition: 40 CFR 52.21(j)(BACT) and Minn. R. 7007.3000]
6.68.11	Mercury: If the Permittee elects to demonstrate compliance with the mercury emission limit with performance testing, the Permittee must conduct an initial performance test: due no later than 180 days after March 8, 2027 (September 4, 2027) and at a minimum of every 30 months thereafter to measure emissions. Performance tests conducted between March 6, 2024 and 180 days after the corresponding

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	compliance date (September 4, 2027) can be used for initial compliance demonstration, provided the tests meet the initial performance testing requirements of 40 CFR pt. 63, subp. RRRRR. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 29, 30B, or other method approved by MPCA in the performance test plan approval. Each mercury performance test must follow the test methods and procedures in 40 CFR 63.9621(d)(1) through (9). Testing conducted during the 60 days prior to a performance test due date will not reset the due date for future testing. Testing conducted more than 60 days prior to the specified due date satisfies this test due date requirement but will reset future performance test due dates based on the most recent performance test date. Under authority provided in Section 112(i)(4) of the Clean Air Act (42 U.S.C. 7412(i)(4)) and according to Proclamation 10958 of July 17, 2025, the Permittee is exempt from compliance with the May 6, 2024, amendments to 40 CFR pt. 63, subp. RRRRR (89 FR 16408) (Taconite MACT amendments) for a period of two years beyond the Taconite MACT amendments' relevant compliance dates. This exemption applies to all compliance deadlines established under the Taconite MACT amendments, with each such deadline extended by two years from the date originally required for such deadline. The effect of this exemption is that, during each such 2-year period, the Permittee is subject to the emissions and compliance obligations that they are currently subject to under 40 CFR pt. 63, subp. RRRRR as that standard existed prior to the Taconite MACT amendments. A copy of the presidential proclamation, as published in the Federal Register on July 23, 2025 (90 FR 34743), is included in Appendix O. [40 CFR 63.4(a)(1), 40 CFR 63.6(j), 40 CFR 63.6(a)(1)(ii), 40 CFR 63.6920(k)(1), 40 CFR 63.6930(b), 40 CFR 63.7, Minn. R. 7011.2015, subp. 3(A), Minn. R. 7011.8030, Minn. R. 7017.2020, subp. 1]
6.68.12	Hydrogen Chloride: If the Permittee elects to demonstrate compliance with the mercury emission limit with performance testing, the Permittee must conduct an initial performance test: due no later than 180 days after March 8, 2027 (September 4, 2027) and at a minimum of every 30 months thereafter to measure emissions. Performance tests conducted between March 6, 2024 and 180 days after the corresponding compliance date (September 4, 2027) can be used for initial compliance demonstration, provided the tests meet the initial performance testing requirements of 40 CFR pt. 63, subp. RRRRR. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 26A, or other method approved by MPCA in the performance test plan approval. Each hydrogen chloride performance test must follow the test methods and procedures in 40 CFR 63.9621(d)(1) through (9). Testing conducted during the 60 days prior to a performance test due date will not reset the due date for future testing. Testing conducted more than 60 days prior to the specified due date satisfies this test due date requirement but will reset future performance test due dates based on the most recent performance test date. Under authority provided in Section 112(i)(4) of the Clean Air Act (42 U.S.C. 7412(i)(4)) and according to Proclamation 10958 of July 17, 2025, the Permittee is exempt from compliance with the May 6, 2024, amendments to 40 CFR pt. 63, subp. RRRRR (89 FR 16408) (Taconite MACT amendments) for a period of two years beyond the Taconite MACT amendments' relevant compliance dates. This

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	exemption applies to all compliance deadlines established under the Taconite MACT amendments, with each such deadline extended by two years from the date originally required for such deadline. The effect of this exemption is that, during each such 2-year period, the Permittee is subject to the emissions and compliance obligations that they are currently subject to under 40 CFR pt. 63, subp. RRRRR as that standard existed prior to the Taconite MACT amendments. A copy of the presidential proclamation, as published in the Federal Register on July 23, 2025 (90 FR 34743), is included in Appendix O. [40 CFR 63.4(a)(1), 40 CFR 63.6(j), 40 CFR 63.6(a)(1)(ii), 40 CFR 63.6920(I), 40 CFR 63.6930(b), 40 CFR 63.7, Minn. R. 7011.2015, subp. 3(A), Minn. R. 7011.8030, Minn. R. 7017.2020, subp. 1]
6.68.13	Hydrogen fluoride: If the Permittee elects to demonstrate compliance with the hydrogen fluoride emission limit with performance testing, the Permittee must conduct an initial performance test: due no later than 180 days after March 8, 2027 (September 4, 2027) and at a minimum of every 30 months thereafter to measure emissions. Performance tests conducted between March 6, 2024 and 180 days after the corresponding compliance date (September 4, 2027) can be used for initial compliance demonstration, provided the tests meet the initial performance testing requirements of 40 CFR pt. 63, subp. RRRRR. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 26A, or other method approved by MPCA in the performance test plan approval. Each hydrogen fluoride performance test must follow the test methods and procedures in 40 CFR 63.9621(d)(1) through (9). Testing conducted during the 60 days prior to a performance test due date will not reset the due date for future testing. Testing conducted more than 60 days prior to the specified due date satisfies this test due date requirement but will reset future performance test due dates based on the most recent performance test date. Under authority provided in Section 112(i)(4) of the Clean Air Act (42 U.S.C. 7412(i)(4)) and according to Proclamation 10958 of July 17, 2025, the Permittee is exempt from compliance with the May 6, 2024, amendments to 40 CFR pt. 63, subp. RRRRR (89 FR 16408) (Taconite MACT amendments) for a period of two years beyond the Taconite MACT amendments' relevant compliance dates. This exemption applies to all compliance deadlines established under the Taconite MACT amendments, with each such deadline extended by two years from the date originally required for such deadline. The effect of this exemption is that, during each such 2-year period, the Permittee is subject to the emissions and compliance obligations that they are currently subject to under 40 CFR pt. 63, subp. RRRRR as that standard existed prior to the Taconite MACT amendments. A copy of the presidential proclamation, as published in the Federal Register on July 23, 2025 (90 FR 34743), is included in Appendix O. [40 CFR 63.4(a)(1), 40 CFR 63.6(j), 40 CFR 63.6(a)(1)(ii), 40 CFR 63.6920(I), 40 CFR 63.6930(b), 40 CFR 63.7, Minn. R. 7011.2015, subp. 3(A), Minn. R. 7011.8030, Minn. R. 7017.2020, subp. 1]
EQUI 280	L5 Rotary Kiln
6.69.1	Filterable Particulate Matter: The Permittee must conduct a performance test due before 11/7/2026 and every 30 months thereafter to measure emissions. The first test is due by the date specified above and all subsequent tests must be completed every 30 months thereafter by the due date (month and day) and as described below. The performance test must be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5, 5D, or other method approved by MPCA in the performance test plan approval.

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	Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. NESHAP RRRRR: Each Method 5 or 5D performance test must consist of three separate runs. Each run must be conducted for a minimum of 1 hour. The average particulate matter concentration from the three runs will be used to determine compliance, as shown in Equation 1 of 40 CFR Section 63.9621. [40 CFR 63.7, 40 CFR 63.9630(b), 40 CFR 63.9634(c)(2), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A), Minn. R. 7017.2020, subp. 1]
6.69.2	Filterable Particulate Matter: The Permittee must submit a performance test notification: Due 60 calendar days before the performance test required by 40 CFR pt. 63, subp. RRRRR is scheduled to begin. [40 CFR 63.7(b), 40 CFR 63.9640(d), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A)]
6.69.3	Filterable Particulate Matter: The Permittee must submit the performance test results: Due 60 days after the completion of each performance test required by 40 CFR pt. 63, subp. RRRRR, following the procedures specified in 40 CFR Section 63.9641(f)(1) through (3). [40 CFR 63.9641(f), Minn. R. 7011.8030]
6.69.4	The Permittee must submit a semiannual compliance report: Due semiannually, by the 31st of January and July. The semiannual compliance reports must include the information in 40 CFR Section 63.9641(b)(1) through (8), as applicable. [40 CFR 63.9641(a) & (b), Minn. R. 7011.8030]
6.69.5	PM < 10 micron: The Permittee shall conduct a performance test due before 11/7/2026 and every 30 months thereafter to verify the emission factor of PM < 10 micron in lb/long ton pellets and lb/hr. The first test is due by the date specified above and all subsequent tests shall be completed every 30 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Method and 202, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7007.0800, subp. 2(B), Minn. R. 7017.2020, subp. 1]
6.69.6	PM < 2.5 micron: The Permittee shall conduct a performance test due before 11/7/2026 and every 30 months thereafter to verify the emission factor of PM < 2.5 micron in lb/long ton pellets and lb/hr. The first test is due by the date specified above and all subsequent tests shall be completed every 30 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Method and 202, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter.

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	Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7007.0800, subp. 2(B), Minn. R. 7017.2020, subp. 1]
6.69.7	Particulate Matter: The Permittee shall conduct a performance test due before 11/7/2026 and every 30 months thereafter to measure emissions. The first test is due by the date specified above and all subsequent tests shall be completed every 30 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5 and 202, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7007.0800, subp. 2(B), Minn. R. 7017.2020, subp. 1]
6.69.8	Carbon Monoxide: The Permittee shall conduct a performance test due before 10/17/2028 and every 60 months thereafter to measure emissions. The first test is due by the date specified above and all subsequent tests shall be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 10, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7017.2020, subp. 1, Title I Condition: 40 CFR 52.21(j)(BACT) and Minn. R. 7007.3000]
6.69.9	Volatile Organic Compounds: The Permittee shall conduct a performance test due before 10/17/2028 and every 60 months thereafter to measure emissions. The first test is due by the date specified above and all subsequent tests shall be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 25A, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7017.2020, subp. 1, Title I Condition: 40 CFR pt. 52, 21(j)(BACT) and Minn. R. 7007.3000]
6.69.10	Fluorides: The Permittee shall conduct a performance test due before 10/17/2028 and every 60

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	months thereafter to measure emissions. The first test is due by the date specified above and all subsequent tests shall be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Method 18, 320, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7017.2020, subp. 1, Title I Condition: 40 CFR 52.21(j)(BACT) and Minn. R. 7007.3000]
6.69.11	Mercury: If the Permittee elects to demonstrate compliance with the mercury emission limit with performance testing, the Permittee must conduct an initial performance test: due no later than 180 days after March 8, 2027 (September 4, 2027) and at a minimum of every 30 months thereafter to measure emissions. Performance tests conducted between March 6, 2024 and 180 days after the corresponding compliance date (September 4, 2027) can be used for initial compliance demonstration, provided the tests meet the initial performance testing requirements of 40 CFR pt. 63, subp. RRRRR. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 29, 30B, or other method approved by MPCA in the performance test plan approval. Each mercury performance test must follow the test methods and procedures in 40 CFR 63.9621(d)(1) through (9). Testing conducted during the 60 days prior to a performance test due date will not reset the due date for future testing. Testing conducted more than 60 days prior to the specified due date satisfies this test due date requirement but will reset future performance test due dates based on the most recent performance test date. Under authority provided in Section 112(i)(4) of the Clean Air Act (42 U.S.C. 7412(i)(4)) and according to Proclamation 10958 of July 17, 2025, the Permittee is exempt from compliance with the May 6, 2024, amendments to 40 CFR pt. 63, subp. RRRRR (89 FR 16408) (Taconite MACT amendments) for a period of two years beyond the Taconite MACT amendments' relevant compliance dates. This exemption applies to all compliance deadlines established under the Taconite MACT amendments, with each such deadline extended by two years from the date originally required for such deadline. The effect of this exemption is that, during each such 2-year period, the Permittee is subject to the emissions and compliance obligations that they are currently subject to under 40 CFR pt. 63, subp. RRRRR as that standard existed prior to the Taconite MACT amendments. A copy of the presidential proclamation, as published in the Federal Register on July 23, 2025 (90 FR 34743), is included in Appendix O. [40 CFR 63.4(a)(1), 40 CFR 63.6(j), 40 CFR 63.6(a)(1)(ii), 40 CFR 63.6920(k)(1), 40 CFR 63.6930(b), 40 CFR 63.7, Minn. R. 7011.2015, subp. 3(A), Minn. R. 7011.8030, Minn. R. 7017.2020, subp. 1]
6.69.12	Hydrogen Chloride: If the Permittee elects to demonstrate compliance with the mercury emission limit with performance testing, the Permittee must conduct an initial performance test: due no later than 180 days after March 8, 2027 (September 4, 2027) and at a minimum of every 30 months thereafter to measure emissions.

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	Performance tests conducted between March 6, 2024 and 180 days after the corresponding compliance date (September 4, 2027) can be used for initial compliance demonstration, provided the tests meet the initial performance testing requirements of 40 CFR pt. 63, subp. RRRRR. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 26A, or other method approved by MPCA in the performance test plan approval. Each hydrogen chloride performance test must follow the test methods and procedures in 40 CFR 63.9621(d)(1) through (9). Testing conducted during the 60 days prior to a performance test due date will not reset the due date for future testing. Testing conducted more than 60 days prior to the specified due date satisfies this test due date requirement but will reset future performance test due dates based on the most recent performance test date. Under authority provided in Section 112(i)(4) of the Clean Air Act (42 U.S.C. 7412(i)(4)) and according to Proclamation 10958 of July 17, 2025, the Permittee is exempt from compliance with the May 6, 2024, amendments to 40 CFR pt. 63, subp. RRRRR (89 FR 16408) (Taconite MACT amendments) for a period of two years beyond the Taconite MACT amendments' relevant compliance dates. This exemption applies to all compliance deadlines established under the Taconite MACT amendments, with each such deadline extended by two years from the date originally required for such deadline. The effect of this exemption is that, during each such 2-year period, the Permittee is subject to the emissions and compliance obligations that they are currently subject to under 40 CFR pt. 63, subp. RRRRR as that standard existed prior to the Taconite MACT amendments. A copy of the presidential proclamation, as published in the Federal Register on July 23, 2025 (90 FR 34743), is included in Appendix O. [40 CFR 63.4(a)(1), 40 CFR 63.6(j), 40 CFR 63.6(a)(1)(ii), 40 CFR 63.6920(l), 40 CFR 63.6930(b), 40 CFR 63.7, Minn. R. 7011.2015, subp. 3(A), Minn. R. 7011.8030, Minn. R. 7017.2020, subp. 1]
6.69.13	Hydrogen fluoride: If the Permittee elects to demonstrate compliance with the hydrogen fluoride emission limit with performance testing, the Permittee must conduct an initial performance test: due no later than 180 days after March 8, 2027 (September 4, 2027) and at a minimum of every 30 months thereafter to measure emissions. Performance tests conducted between March 6, 2024 and 180 days after the corresponding compliance date (September 4, 2027) can be used for initial compliance demonstration, provided the tests meet the initial performance testing requirements of 40 CFR pt. 63, subp. RRRRR. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 26A, or other method approved by MPCA in the performance test plan approval. Each hydrogen fluoride performance test must follow the test methods and procedures in 40 CFR 63.9621(d)(1) through (9). Testing conducted during the 60 days prior to a performance test due date will not reset the due date for future testing. Testing conducted more than 60 days prior to the specified due date satisfies this test due date requirement but will reset future performance test due dates based on the most recent performance test date. Under authority provided in Section 112(i)(4) of the Clean Air Act (42 U.S.C. 7412(i)(4)) and according to Proclamation 10958 of July 17, 2025, the Permittee is exempt from compliance with the May 6,

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	2024, amendments to 40 CFR pt. 63, subp. RRRRR (89 FR 16408) (Taconite MACT amendments) for a period of two years beyond the Taconite MACT amendments' relevant compliance dates. This exemption applies to all compliance deadlines established under the Taconite MACT amendments, with each such deadline extended by two years from the date originally required for such deadline. The effect of this exemption is that, during each such 2-year period, the Permittee is subject to the emissions and compliance obligations that they are currently subject to under 40 CFR pt. 63, subp. RRRRR as that standard existed prior to the Taconite MACT amendments. A copy of the presidential proclamation, as published in the Federal Register on July 23, 2025 (90 FR 34743), is included in Appendix O. [40 CFR 63.4(a)(1), 40 CFR 63.6(j), 40 CFR 63.6(a)(1)(ii), 40 CFR 63.6920(l), 40 CFR 63.6930(b), 40 CFR 63.7, Minn. R. 7011.2015, subp. 3(A), Minn. R. 7011.8030, Minn. R. 7017.2020, subp. 1]
EQUI 350	L3 Cooler Vent Stack
6.70.1	Particulate Matter: The Permittee shall conduct a performance test due before 11/8/2026 and every 30 months thereafter to measure emissions. The first test is due by the date specified above and all subsequent tests shall be completed every 30 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5 and 202, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7017.2020, subp. 1]
6.70.2	Opacity: The Permittee shall conduct a performance test due before 11/8/2026 and every 30 months thereafter to measure opacity. The first test is due by the date specified above and all subsequent tests shall be completed every 30 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 9, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7017.2020, subp. 1]
EQUI 368	L4 Grate Discharge
6.71.1	Filterable Particulate Matter: The Permittee must conduct a performance test due 180 days after permit issuance and every 60 months thereafter to measure emissions. The first test is due by the date specified above and all subsequent tests must be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test must be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5, 5D,

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	17, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. NESHAP RRRRR: Each Method 5, 5D, or 17 performance test must consist of three separate runs. Each run must be conducted for a minimum of 1 hour. The average particulate matter concentration from the three runs will be used to determine compliance, as shown in Equation 1 of 40 CFR 63.9621. The Permittee must use the results of this performance test to determine the flow-weighted mean concentration of filterable particulate matter emissions following the procedures in 40 CFR 63.9621(b)(3). [40 CFR 63.7, 40 CFR 63.9630(c), 40 CFR 63.9634(b), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A), Minn. R. 7017.2020, subp. 1]
6.71.2	Filterable Particulate Matter: The Permittee must submit a performance test notification: Due 60 calendar days before the performance test required by 40 CFR pt. 63, subp. RRRRR is scheduled to begin. [40 CFR 63.7(b), 40 CFR 63.9640(d), Minn. R. 7011.8030, Minn. R. 7017.2015, subp. 3(A)]
6.71.3	Filterable Particulate Matter: The Permittee must submit the performance test results: Due 60 days after the completion of each performance test required by 40 CFR pt. 63, subp. RRRRR, following the procedures specified in 40 CFR 63.9641(f)(1) through (3). [40 CFR 63.9641(f), Minn. R. 7011.8030]
6.71.4	Particulate Matter: The Permittee shall conduct a performance test due before 180 days after permit issuance and every 60 months thereafter to verify the emission factor of filterable particulate matter and condensable particulate matter in lb/long ton pellets and lb/hr. The first test is due by the date specified above and all subsequent tests shall be completed every 60 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5 and 202, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7017.2020, subp. 1, Minn. R. 7019.3050, subp. C]
EQUI 370	L4 Pellet Cooler Vent Stack
6.72.1	Particulate Matter: The Permittee shall conduct a performance test due before 180 days after permit issuance and every 30 months thereafter to measure emissions. The first test is due by the date specified above and all subsequent tests shall be completed every 30 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 5 and 202, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter.

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	Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7017.2020, subp. 1]
6.72.2	Opacity: The Permittee shall conduct a performance test due before 180 days after permit issuance and every 30 months thereafter to measure opacity. The first test is due by the date specified above and all subsequent tests shall be completed every 30 months thereafter by the due date (month and day) and as described below. The performance test shall be conducted at worst-case conditions defined at Minn. R. 7017.2005, subp. 8 or at the operating conditions described at Minn. R. 7017.2025, subp. 2, using EPA Reference Methods 9, or other method approved by MPCA in the performance test plan approval. Testing conducted during the 60 days prior to the performance test due date will not reset the test due date for future testing as required by this permit or within a Notice of Compliance letter. Testing conducted more than 60 days prior to the performance test due date satisfies this test due date requirement but will reset future performance test due dates based on the performance test date. [Minn. R. 7017.2020, subp. 1]
EQUI 703	Fire Hall Emergency Generator
6.73.1	If the emergency stationary engine operates for the purposes specified in 40 CFR 60.4211(f)(3)(i), the Permittee must submit an annual report for each calendar year no later than March 31 of the following calendar year. The annual report must be submitted electronically using the subpart specific reporting form in the Compliance and Emission Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (https://cdx.epa.gov/). However, if the reporting form not available in CEDRI at the time that the report is due, the written report must be submitted to the Administrator at the appropriate address listed in 40 CFR 60.4 and emailed to the MPCA as directed in Section 2 of this permit for other compliance submittals. Beginning on February 26, 2025, submit the annual report electronically according to 40 CFR 60.4214(g). [40 CFR 60.4214(d), 40 CFR 60.4214(g), Minn. R. 7011.2305]
EQUI 706	Step II Agglomerator Emergency Generator
6.74.1	If the emergency stationary engine operates for the purposes specified in 40 CFR 60.4211(f)(3)(i), the Permittee must submit an annual report for each calendar year no later than March 31 of the following calendar year. The annual report must be submitted electronically using the subpart specific reporting form in the Compliance and Emission Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (https://cdx.epa.gov/). However, if the reporting form not available in CEDRI at the time that the report is due, the written report must be submitted to the Administrator at the appropriate address listed in 40 CFR 60.4 and emailed to the MPCA as directed in Section 2 of this permit for other compliance submittals. Beginning on February 26, 2025, submit the annual report electronically according to 40 CFR 60.4214(g). [40 CFR 60.4214(d), 40 CFR 60.4214(g), Minn. R. 7011.2305]
6.74.2	The Permittee shall submit notification of the date construction of replacement began: Due 60 calendar days before Date of Construction or Replacement (or as soon as practicable). Submit the information specified in 40 CFR 60.15(d)(1) through (7). The notification shall be submitted electronically on Form CS-02. [40 CFR 60.15(d), Minn. R. 7011.0050]
FUGI 36	Contractor Activities
6.75.1	The Permittee must submit an annual report: Due annually, by the 31st of January. The report must

Requirement number	Requirement and citation
	document the material throughput 12-month rolling sum calculations for each activity contracted by the Permittee for each month of the previous calendar year. The report shall be submitted with the annual Compliance Certification required by this permit. [Minn. R. 7007.0800, subp. 16(L)]
6.75.2	The Permittee must submit an annual report : Due annually, by the 31st of January for the Visible Emission Events at FUGI 36. The annual report shall describe the visible emission events that occurred during the previous calendar year as recorded in the Visible Emissions Recordkeeping requirement elsewhere in this permit. The report must be submitted with the annual Compliance Certification required by this permit. [Minn. R. 7007.0800, subp. 16(L)]
TREA 233	Conveyor Transfer 005-006 Cartridge Filter
6.76.1	The Permittee shall submit a notification of the date construction began: Due 30 calendar days after Date of Construction Start (or reconstruction). Submit the name and number of the Subject Item and the date construction began. The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
6.76.2	The Permittee shall submit a notification of the actual date of initial startup: Due 15 calendar days after Initial Startup Date. Submit the name and number of the Subject Item and the date of startup. Startup is as defined in Minn. R. 7005.0100, subp. 42a. The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
TREA 234	Conveyor Transfer 001 to 070 Cartridge Filter
6.77.1	The Permittee shall submit a notification of the date construction began: Due 30 calendar days after Date of Construction Start (or reconstruction). Submit the name and number of the Subject Item and the date construction began. The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
6.77.2	The Permittee shall submit a notification of the actual date of initial startup: Due 15 calendar days after Initial Startup Date. Submit the name and number of the Subject Item and the date of startup. Startup is as defined in Minn. R. 7005.0100, subp. 42a. The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
TREA 235	Conveyor Transfer 005-006 Cartridge Filter
6.78.1	The Permittee shall submit a notification of the date construction began: Due 30 calendar days after Date of Construction Start (or reconstruction). Submit the name and number of the Subject Item and the date construction began. The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
6.78.2	The Permittee shall submit a notification of the actual date of initial startup: Due 15 calendar days after Initial Startup Date. Submit the name and number of the Subject Item and the date of startup. Startup is as defined in Minn. R. 7005.0100, subp. 42a. The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
TREA 236	Surge Pile/Reclaim 011-01 Cartridge Filter
6.79.1	The Permittee shall submit a notification of the date construction began: Due 30 calendar days after Date of Construction Start (or reconstruction). Submit the name and number of the Subject Item and the date construction began. The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
6.79.2	The Permittee shall submit a notification of the actual date of initial startup: Due 15 calendar days

Requirement number	Requirement and citation
	after Initial Startup Date. Submit the name and number of the Subject Item and the date of startup. Startup is as defined in Minn. R. 7005.0100, subp. 42a.
	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
TREA 237	Conveyor Transfer 008-009 Cartridge Filter
6.80.1	The Permittee shall submit a notification of the date construction began: Due 30 calendar days after Date of Construction Start (or reconstruction). Submit the name and number of the Subject Item and the date construction began.
	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
6.80.2	The Permittee shall submit a notification of the actual date of initial startup: Due 15 calendar days after Initial Startup Date. Submit the name and number of the Subject Item and the date of startup. Startup is as defined in Minn. R. 7005.0100, subp. 42a.
	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
TREA 238	Secondary Crusher L6 Cartridge Filter
6.81.1	The Permittee shall submit a notification of the date construction began: Due 30 calendar days after Date of Construction Start (or reconstruction). Submit the name and number of the Subject Item and the date construction began.
	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
6.81.2	The Permittee shall submit a notification of the actual date of initial startup: Due 15 calendar days after Initial Startup Date. Submit the name and number of the Subject Item and the date of startup. Startup is as defined in Minn. R. 7005.0100, subp. 42a.
	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
TREA 239	Secondary Crusher L8 Cartridge Filter
6.82.1	The Permittee shall submit a notification of the date construction began: Due 30 calendar days after Date of Construction Start (or reconstruction). Submit the name and number of the Subject Item and the date construction began.
	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
6.82.2	The Permittee shall submit a notification of the actual date of initial startup: Due 15 calendar days after Initial Startup Date. Submit the name and number of the Subject Item and the date of startup. Startup is as defined in Minn. R. 7005.0100, subp. 42a.
	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
TREA 240	Secondary Crusher L7 Cartridge Filter
6.83.1	The Permittee shall submit a notification of the date construction began: Due 30 calendar days after Date of Construction Start (or reconstruction). Submit the name and number of the Subject Item and the date construction began.
	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
6.83.2	The Permittee shall submit a notification of the actual date of initial startup: Due 15 calendar days after Initial Startup Date. Submit the name and number of the Subject Item and the date of startup. Startup is as defined in Minn. R. 7005.0100, subp. 42a.
	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]

Requirement number	Requirement and citation
TREA 241	Secondary Crusher L9 Cartridge Filter
6.84.1	The Permittee shall submit a notification of the date construction began: Due 30 calendar days after Date of Construction Start (or reconstruction). Submit the name and number of the Subject Item and the date construction began. The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
6.84.2	The Permittee shall submit a notification of the actual date of initial startup: Due 15 calendar days after Initial Startup Date. Submit the name and number of the Subject Item and the date of startup. Startup is as defined in Minn. R. 7005.0100, subp. 42a. The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
TREA 242	Secondary Crusher L10 Cartridge Filter
6.85.1	The Permittee shall submit a notification of the date construction began: Due 30 calendar days after Date of Construction Start (or reconstruction). Submit the name and number of the Subject Item and the date construction began. The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
6.85.2	The Permittee shall submit a notification of the actual date of initial startup: Due 15 calendar days after Initial Startup Date. Submit the name and number of the Subject Item and the date of startup. Startup is as defined in Minn. R. 7005.0100, subp. 42a. The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
TREA 243	Step III Coarse Crusher Pan Feeders Cartridge Filter
6.86.1	The Permittee shall submit a notification of the date construction began: Due 30 calendar days after Date of Construction Start (or reconstruction). Submit the name and number of the Subject Item and the date construction began. The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
6.86.2	The Permittee shall submit a notification of the actual date of initial startup: Due 15 calendar days after Initial Startup Date. Submit the name and number of the Subject Item and the date of startup. Startup is as defined in Minn. R. 7005.0100, subp. 42a. The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
TREA 244	Conveyor Transfer 011-02/03 Cartridge Filter
6.87.1	The Permittee shall submit a notification of the date construction began: Due 30 calendar days after Date of Construction Start (or reconstruction). Submit the name and number of the Subject Item and the date construction began. The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
6.87.2	The Permittee shall submit a notification of the actual date of initial startup: Due 15 calendar days after Initial Startup Date. Submit the name and number of the Subject Item and the date of startup. Startup is as defined in Minn. R. 7005.0100, subp. 42a. The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
TREA 245	Secondary Crusher L11 Cartridge Filter
6.88.1	The Permittee shall submit a notification of the date construction began: Due 30 calendar days after Date of Construction Start (or reconstruction). Submit the name and number of the Subject Item and the date construction began.

Requirement number	Requirement and citation
	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
6.88.2	The Permittee shall submit a notification of the actual date of initial startup: Due 15 calendar days after Initial Startup Date. Submit the name and number of the Subject Item and the date of startup. Startup is as defined in Minn. R. 7005.0100, subp. 42a.
	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
TREA 246	Secondary Crusher L12 Cartridge Filter
6.89.1	The Permittee shall submit a notification of the date construction began: Due 30 calendar days after Date of Construction Start (or reconstruction). Submit the name and number of the Subject Item and the date construction began.
	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
6.89.2	The Permittee shall submit a notification of the actual date of initial startup: Due 15 calendar days after Initial Startup Date. Submit the name and number of the Subject Item and the date of startup. Startup is as defined in Minn. R. 7005.0100, subp. 42a.
	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
TREA 247	Secondary Crusher L13 Cartridge Filter
6.90.1	The Permittee shall submit a notification of the date construction began: Due 30 calendar days after Date of Construction Start (or reconstruction). Submit the name and number of the Subject Item and the date construction began.
	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
6.90.2	The Permittee shall submit a notification of the actual date of initial startup: Due 15 calendar days after Initial Startup Date. Submit the name and number of the Subject Item and the date of startup. Startup is as defined in Minn. R. 7005.0100, subp. 42a.
	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
TREA 248	Secondary Crusher L14 Cartridge Filter
6.91.1	The Permittee shall submit a notification of the date construction began: Due 30 calendar days after Date of Construction Start (or reconstruction). Submit the name and number of the Subject Item and the date construction began.
	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
6.91.2	The Permittee shall submit a notification of the actual date of initial startup: Due 15 calendar days after Initial Startup Date. Submit the name and number of the Subject Item and the date of startup. Startup is as defined in Minn. R. 7005.0100, subp. 42a.
	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
TREA 249	Secondary Crusher L15 Cartridge Filter
6.92.1	The Permittee shall submit a notification of the date construction began: Due 30 calendar days after Date of Construction Start (or reconstruction). Submit the name and number of the Subject Item and the date construction began.
	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
6.92.2	The Permittee shall submit a notification of the actual date of initial startup: Due 15 calendar days after Initial Startup Date. Submit the name and number of the Subject Item and the date of startup.

Requirement number	Requirement and citation
	Startup is as defined in Minn. R. 7005.0100, subp. 42a.
	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
TREA 250	Tertiary Crusher L18 Cartridge Filter
6.93.1	The Permittee shall submit a notification of the date construction began: Due 30 calendar days after Date of Construction Start (or reconstruction). Submit the name and number of the Subject Item and the date construction began.
	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
6.93.2	The Permittee shall submit a notification of the actual date of initial startup: Due 15 calendar days after Initial Startup Date. Submit the name and number of the Subject Item and the date of startup. Startup is as defined in Minn. R. 7005.0100, subp. 42a.
	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
TREA 251	Tertiary Crusher L21 Cartridge Filter
6.94.1	The Permittee shall submit a notification of the date construction began: Due 30 calendar days after Date of Construction Start (or reconstruction). Submit the name and number of the Subject Item and the date construction began.
	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
6.94.2	The Permittee shall submit a notification of the actual date of initial startup: Due 15 calendar days after Initial Startup Date. Submit the name and number of the Subject Item and the date of startup. Startup is as defined in Minn. R. 7005.0100, subp. 42a.
	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
TREA 252	Tertiary Crusher L19 Cartridge Filter
6.95.1	The Permittee shall submit a notification of the date construction began: Due 30 calendar days after Date of Construction Start (or reconstruction). Submit the name and number of the Subject Item and the date construction began.
	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
6.95.2	The Permittee shall submit a notification of the actual date of initial startup: Due 15 calendar days after Initial Startup Date. Submit the name and number of the Subject Item and the date of startup. Startup is as defined in Minn. R. 7005.0100, subp. 42a.
	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
TREA 253	Tertiary Crusher L20 Cartridge Filter
6.96.1	The Permittee shall submit a notification of the date construction began: Due 30 calendar days after Date of Construction Start (or reconstruction). Submit the name and number of the Subject Item and the date construction began.
	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
6.96.2	The Permittee shall submit a notification of the actual date of initial startup: Due 15 calendar days after Initial Startup Date. Submit the name and number of the Subject Item and the date of startup. Startup is as defined in Minn. R. 7005.0100, subp. 42a.
	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
TREA 254	Tertiary Crusher L22 Cartridge Filter

Requirement number	Requirement and citation
6.97.1	The Permittee shall submit a notification of the date construction began: Due 30 calendar days after Date of Construction Start (or reconstruction). Submit the name and number of the Subject Item and the date construction began. The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
6.97.2	The Permittee shall submit a notification of the actual date of initial startup: Due 15 calendar days after Initial Startup Date. Submit the name and number of the Subject Item and the date of startup. Startup is as defined in Minn. R. 7005.0100, subp. 42a. The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
TREA 255	Tertiary Crusher L23 Cartridge Filter
6.98.1	The Permittee shall submit a notification of the date construction began: Due 30 calendar days after Date of Construction Start (or reconstruction). Submit the name and number of the Subject Item and the date construction began. The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
6.98.2	The Permittee shall submit a notification of the actual date of initial startup: Due 15 calendar days after Initial Startup Date. Submit the name and number of the Subject Item and the date of startup. Startup is as defined in Minn. R. 7005.0100, subp. 42a. The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
TREA 256	Tertiary Crusher L28 Cartridge Filter
6.99.1	The Permittee shall submit a notification of the date construction began: Due 30 calendar days after Date of Construction Start (or reconstruction). Submit the name and number of the Subject Item and the date construction began. The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
6.99.2	The Permittee shall submit a notification of the actual date of initial startup: Due 15 calendar days after Initial Startup Date. Submit the name and number of the Subject Item and the date of startup. Startup is as defined in Minn. R. 7005.0100, subp. 42a. The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
TREA 257	Tertiary Crusher L24 Cartridge Filter
6.100.1	The Permittee shall submit a notification of the date construction began: Due 30 calendar days after Date of Construction Start (or reconstruction). Submit the name and number of the Subject Item and the date construction began. The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
6.100.2	The Permittee shall submit a notification of the actual date of initial startup: Due 15 calendar days after Initial Startup Date. Submit the name and number of the Subject Item and the date of startup. Startup is as defined in Minn. R. 7005.0100, subp. 42a. The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
TREA 258	Tertiary Crusher L25 Cartridge Filter
6.101.1	The Permittee shall submit a notification of the date construction began: Due 30 calendar days after Date of Construction Start (or reconstruction). Submit the name and number of the Subject Item and the date construction began.

Requirement number	Requirement and citation
	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
6.101.2	The Permittee shall submit a notification of the actual date of initial startup: Due 15 calendar days after Initial Startup Date. Submit the name and number of the Subject Item and the date of startup. Startup is as defined in Minn. R. 7005.0100, subp. 42a.
	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
TREA 259	Tertiary Crusher L26 Cartridge Filter
6.102.1	The Permittee shall submit a notification of the date construction began: Due 30 calendar days after Date of Construction Start (or reconstruction). Submit the name and number of the Subject Item and the date construction began.
	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
6.102.2	The Permittee shall submit a notification of the actual date of initial startup: Due 15 calendar days after Initial Startup Date. Submit the name and number of the Subject Item and the date of startup. Startup is as defined in Minn. R. 7005.0100, subp. 42a.
	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
TREA 260	Tertiary Crusher L27 Cartridge Filter
6.103.1	The Permittee shall submit a notification of the date construction began: Due 30 calendar days after Date of Construction Start (or reconstruction). Submit the name and number of the Subject Item and the date construction began.
	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
6.103.2	The Permittee shall submit a notification of the actual date of initial startup: Due 15 calendar days after Initial Startup Date. Submit the name and number of the Subject Item and the date of startup. Startup is as defined in Minn. R. 7005.0100, subp. 42a.
	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
TREA 261	Conveyor Transfer 009-020 Cartridge Filter
6.104.1	The Permittee shall submit a notification of the date construction began: Due 30 calendar days after Date of Construction Start (or reconstruction). Submit the name and number of the Subject Item and the date construction began.
	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
6.104.2	The Permittee shall submit a notification of the actual date of initial startup: Due 15 calendar days after Initial Startup Date. Submit the name and number of the Subject Item and the date of startup. Startup is as defined in Minn. R. 7005.0100, subp. 42a.
	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
TREA 262	Conveyor Transfer 003-004 Cartridge Filter
6.105.1	The Permittee shall submit a notification of the date construction began: Due 30 calendar days after Date of Construction Start (or reconstruction). Submit the name and number of the Subject Item and the date construction began.
	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
6.105.2	The Permittee shall submit a notification of the actual date of initial startup: Due 15 calendar days after Initial Startup Date. Submit the name and number of the Subject Item and the date of startup. Startup is as defined in Minn. R. 7005.0100, subp. 42a.

Requirement number	Requirement and citation
	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
TREA 264	Conveyor Transfer 003 Cartridge Filter
6.106.1	The Permittee shall submit a notification of the date construction began: Due 30 calendar days after Date of Construction Start (or reconstruction). Submit the name and number of the Subject Item and the date construction began.
	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
6.106.2	The Permittee shall submit a notification of the actual date of initial startup: Due 15 calendar days after Initial Startup Date. Submit the name and number of the Subject Item and the date of startup. Startup is as defined in Minn. R. 7005.0100, subp. 42a.
	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
TREA 265	Conveyor Transfer 001-070 Bin Cartridge Filter
6.107.1	The Permittee shall submit a notification of the date construction began: Due 30 calendar days after Date of Construction Start (or reconstruction). Submit the name and number of the Subject Item and the date construction began.
	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
6.107.2	The Permittee shall submit a notification of the actual date of initial startup: Due 15 calendar days after Initial Startup Date. Submit the name and number of the Subject Item and the date of startup. Startup is as defined in Minn. R. 7005.0100, subp. 42a.
	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
TREA 266	Step I Basement Belts Cartridge Filter
6.108.1	The Permittee shall submit a notification of the date construction began: Due 30 calendar days after Date of Construction Start (or reconstruction). Submit the name and number of the Subject Item and the date construction began.
	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
6.108.2	The Permittee shall submit a notification of the actual date of initial startup: Due 15 calendar days after Initial Startup Date. Submit the name and number of the Subject Item and the date of startup. Startup is as defined in Minn. R. 7005.0100, subp. 42a.
	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
TREA 269	Step III Tertiary Storage 006-080 Bins Cartridge Filter
6.109.1	The Permittee shall submit a notification of the date construction began: Due 30 calendar days after Date of Construction Start (or reconstruction). Submit the name and number of the Subject Item and the date construction began.
	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
6.109.2	The Permittee shall submit a notification of the actual date of initial startup: Due 15 calendar days after Initial Startup Date. Submit the name and number of the Subject Item and the date of startup. Startup is as defined in Minn. R. 7005.0100, subp. 42a.
	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]

7. Appendices

Appendix A. Insignificant activities and general applicable requirements

The table below lists the insignificant activities that are currently at the Facility and their associated general applicable requirements.

Minn. R.	Rule description of the activity	General applicable requirement
Minn. R. 7007.1300, subp. 3(B)(1)	Infrared electric ovens. <i>U.S. Steel operates 75 infrared ovens that are used in its QC laboratory or warm samples and throughout the facility to warm welding rod.</i>	PM, variable depending on airflow Opacity <= 20% with exceptions (Minn. R. 7011.0610)
Minn. R. 7007.1300, subp. 3(D)	Emissions from a laboratory, as defined in Minn. R. 7007.1300, subp. 3(D). <i>U.S. Steel operates an on-site QC laboratory for product testing.</i>	PM, variable depending on airflow Opacity <= 20% (Minn. R. 7011.0715)
Minn. R. 7007.1300, subp. 3(E)	Brazing, soldering, torch-cutting, or welding equipment. <i>U.S. Steel has 200 welding units on-site for maintenance and repair of process equipment.</i>	PM, variable depending on airflow Opacity <= 20% (Minn. R. 7011.0715)
Minn. R. 7007.1300, subp. 3(F)	Individual units with potential emissions less than 2000 lb/year of certain pollutants. <i>U.S. Steel operates 170 propane/NG-fired space heaters and 23 propane/NG-fired "weed burners" that are used to warm up equipment in severe cold.</i>	PM <= 0.4 lb/MMBtu, depending on year constructed Opacity <= 20% with exceptions (Minn. R. 7011.0515)
Minn. R. 7007.1300, subp. 3(G)	Fugitive dust emissions from unpaved roads and parking lots.	Requirement to take reasonable measures to prevent PM from becoming airborne (Minn. R. 7011.0150)
Minn. R. 7007.1300, subp. 4	Individual units with potential or actual emissions meeting the criteria in Minn. R. 7007.1300, subp. 4(A)-(D). <i>U.S. Steel operates tanks for fueling fleet vehicles with diesel fuel and gasoline, the largest being 20,000 gallons.</i> <i>U.S. Steel operates 5 cooling towers.</i> <i>U.S. Steel operates a curing oven (Electric Shop Curing Oven).</i>	For the tanks: Minn. R. 7011.1505, subp. 2(B) or subp. 3(B), depending on the year construction commenced of each tank. For the cooling towers: PM, variable depending on airflow Opacity <= 20% (Minn. R. 7011.0715) For the curing oven: PM <= 0.4 lb/MMBtu, depending on year constructed Opacity <= 20% with exceptions (Minn. R. 7011.0515)

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Appendix B. Fugitive Dust Control Plan

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United States Steel Corporation Minntac

40 CFR 63 Subpart RRRRR
National Emission Standards for Hazardous Air Pollutants for Taconite Iron
Ore Processing

Fugitive Dust Emissions Control Plan

Applicable to the following:

- ☐ Stockpiles
- ☐ Material Transfer Points
- ☐ Mine Roadways
- ☐ Tailings Basin
- ☐ Pellet Handling Areas
- ☐ Yard Areas

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1.0 Introduction

National Emissions Standards for Hazardous Air Pollutants for Taconite Iron Ore Processing Facilities were promulgated under 40 CFR 63 Subpart RRRRR on October 30, 2003. The following USS-Minntac facility, hereinafter called Minntac, emission sources are subject to the standards specified under 40 CFR 63 Subpart RRRRR:

- Ore Crushing and Handling Operations
- Indurating Furnaces
- Finished Pellet Handling Operations
- Fugitive Dust Emissions

2.0 Purpose

The purpose of this document is to comply with 40 CFR 63 Subparts A and RRRRR to develop and implement a Fugitive Dust Emissions Control Plan. 40 CFR 63.9591 requires that a written Fugitive Dust Emissions Control Plan be developed and implemented for the affected source as specified in §63.9583. The requirement for Minntac is incorporated by reference in the operating permit that is issued by the designated permitting authority under 40 CFR Part 70.

3.0 Scope

The scope of the Fugitive Emissions Control Plan is to identify the fugitive sources and outline procedures utilized to control fugitive emissions. This includes identification of all fugitive emission sources, operating controls and practices to control fugitive emissions, and corrective action requirements. The objective of the plan is to prevent avoidable fugitive emissions from leaving Minntac property.

4.0 Responsibilities

- 4.1 Area managers in the Mine, Crusher and Agglomerator are responsible for directing the implementation of the Plan.
- 4.2 Training supervisors are responsible for training fugitive emissions observers.
- 4.3 Fugitive emission observers are responsible for evaluating the fugitive emissions sources listed in Table 1 below.
- 4.4 All employees are responsible for reporting excess fugitive emissions.

5.0 Procedure

- 5.1 Specific control measures used to minimize fugitive emissions are listed in Table 1 below. The fugitive source (FS) numbers correspond to those in Appendix B of Minntac's Title V Air Emissions Permit. Corresponding FUGI numbers have also been added, which will be the identifiers in the future Minntac TV reissuance permit.

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Table 1. Fugitive Emissions Source Descriptions and Controls

FS #	FUGI	Description of Source	Primary Control*	Operating Practices*	Dust Suppressants
1	6	Surface overburden stockpiles	Expedient vegetation of surfaces	VE daily observations Water on active bench roadways and dump positions.	None
2	8	Unpaved roadways for heavy-duty vehicles	Water	VE daily observations Road maintenance and grading. Wet tailings application.	Various commercial dust suppressants.
3	20	Unpaved roadways for secondary vehicles			
4	26	Unpaved roadways for light-duty vehicles			
5	18	Blasting	Engineered blast hole pattern	Monitor meteorological conditions	None
6	11	Ballast feed rock stockpile - east pit	Instructions to contractors	VE daily observations. Communications with contractors. Water addition	None
7	29	Ballast feed rock stockpile – west pit			
8	22	Ballast product stockpile - east pit	Instructions to contractors	VE daily observations. Communications with contractors. Water addition	None
9	5	Ballast product stockpile – west pit			
10	4	Ballast fines stockpile - east pit	Instructions to contractors	VE daily observations. Communications with contractors. Water addition.	None
11	25	Ballast fines stockpile – west pit			
12	3	Coarse Tailings Stockpile	Natural moisture content and material size	Water addition	None
13	27	Scrap Rod Stockpile	Natural moisture content and material size	Stockpile size and location to minimize exposure to wind	None
14	24	Group 13 Feed Stockpile	Instructions to contractors	VE daily observations. Communications with contractors. Water addition	None

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Table 1. Fugitive Emissions Source Descriptions and Controls - continued

FS #	FUGI	Description of Source	Primary Control*	Operating Practices*	Dust Suppressants
15	1	Group 13 screened pellets stockpile	Instructions to contractors	VE daily observations. Communications with contractors. Water addition	None
16	10	Group 13 screened fines stockpile	Instructions to contractors	VE daily observations. Communications with contractors. Water addition.	None
17	14	Crusher Step 1/2 and Step 3 crude ore stockpiles/material transfer	Water addition to belts feeding piles	VE daily observations Dust suppressant application if appropriate.	Various commercial dust suppressants.
21	15	Agglomerator Step 2 and Step 3 concentrate storage stockpiles	Filter cake moisture control.	VE daily observations Adjust filtering process.	None
22	23	Agglomerator Step 1 and 2 auxiliary pellet stockpile/loadout	Water addition to belts feeding piles.	VE daily observations Good operating practices and moisture control.	None
23	17	Agglomerator Step 1 and 2 main pellet stockpile/loadout			
24	28	Agglomerator Step 3 main pellet stockpile/loadout			
25	9	Crude Ore to Truck or Stockpile	Natural moisture content and material size	Minimize drop distance to truck	None
27	19	72 Temporary Crude Ore Stockpile	Natural moisture content and material size	VE daily observations included in Mine observations, if activities occurring. Minimize stockpile size	None
28	21	74 Temporary Crude Ore Stockpile			
30	16	Tailings Basin	Mulching, vegetation and maintaining berm height.	VE daily observations Minimize number of active cells. Limit size of cells. Re-flood inactive cells	None
31	30	Coal Transfer from Truck to Hopper	Natural moisture content	Minimize drop distance from truck to hopper	None

*Primary control includes daily practices, whereas operating practices are above and beyond measures identified in the Plan.

5.2 VE daily observations for the presence of fugitive emissions from applicable sources listed in Table 1 shall be performed once daily during daylight hours by the following:

5.2.1 In the Mine, observations shall be performed by Operating Shift Managers or designee.

5.2.2 In the Crusher, observations shall be performed by the Operating Shift Managers or designee.

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5.2.3 In the Agglomerator, observations shall be performed by the Filter Attendants, Operating Shift Managers or designee.

5.3 In the event of a finding that attention to fugitive emission sources is required, potential causes shall be investigated and corrective action implemented as necessary.

5.4 Fugitive emission observations shall be recorded and the records retained in accordance with Section 6 of this document and Minntac's Title V Air Emissions Permit.

5.5 Training shall be provided to visible emission check personnel on fugitive emission observation techniques, and the control methods or procedures listed in Table 1.

5.6 Training shall be recorded and the records retained in accordance with Section 6 of this document and Minntac's Title V Air Emissions Permit.

5.7 The following methods of fugitive emissions control shall be used at Minntac to prevent avoidable fugitive emissions from leaving Minntac property.

5.7.1 Surface overburden stockpiles: FS 1 (FUGI 6)

5.7.1.1 Stockpile lifts, catch benches and top surface areas are vegetated as soon as practicable within the first growing season after active stockpile use ceases. Minntac follows the MNDNR Reclamation Rules (MN Rule 6130).

5.7.2 Unpaved Roadways for heavy-duty, secondary, and light-duty vehicles: FS 2, 3, 4 (FUGI 8, 20, 26)

5.7.2.1 Water is added to roadways as the primary control method. The roadways are watered as needed, and the frequency depends on the weather. Low humidity and high wind speeds require higher frequency of watering the roads.

5.7.2.2 Dust suppressants and wet coarse tailings are periodically applied to roadways as conditions warrant.

5.7.2.3 Grading of roadways

5.7.2.4 Daily visible emissions check by shift manager or other designated visible emission observer. If visible emissions are observed, watering the roads or other appropriate mitigation measures will be taken.

5.7.3 Blasting: FS 5 (FUGI 18)

5.7.3.1 Blast hole patterns are engineered to minimize emissions.

5.7.3.2 Meteorological conditions will be monitored for potential temperature inversions and wind speed/ direction before each blast. A blast would be postponed if weather conditions are deemed unfavorable by Plant personnel on a case by case basis. The following are used to determine if a blast should be postponed:

- (1) general atmospheric conditions such as the presence or absence of temperature inversions,
- (2) wind direction and velocity,
- (3) air overpressure measured during test blast(s) and,
- (4) professional experience and judgment.

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5.7.4 Ballast Feedrock, Product, and Fines Stockpiles: FS 6, 7, 8, 9, 10, & 11 (FUGI 11, 29, 22, 5, 4, 25)

- 5.7.4.1 Crushing and screening of ballast material is performed by a contractor. The contractor is instructed to minimize fugitive emissions to the extent possible.
- 5.7.4.2 Daily fugitive emissions observations shall be made by Minntac Mine Operating Shift Managers or designee and used to evaluate the effectiveness of the contractor's control methods.
- 5.7.4.3 Any need for corrective actions shall be promptly communicated to contractor supervision.

5.7.5 Coarse Tailings Stockpile: FS 12 (FUGI 3)

- 5.7.5.1 Excess coarse tailings may be stockpiled. Due to their material size and natural moisture content, they typically do not produce fugitive dust.

5.7.6 Scrap Rod Stockpile: FS 13 (FUGI 27)

- 5.7.6.1 The stockpiles have small amounts of coarse ground taconite intermingled with the metal rod. Due to the material size and natural moisture content they typically do not produce fugitive dust.
- 5.7.6.2 In addition the stockpiles are placed in an area with natural barriers to minimize any fugitive dust generation.

5.7.7 Group 13 Stockpiles: FS 13, 15, 16 (FUGI 1, 10, 24)

- 5.7.7.1 Screening of group 13 material is performed by a contractor. The contractor is instructed to minimize fugitive emissions to the extent possible.
- 5.7.7.2 Daily fugitive emissions observations shall be made by Minntac Mine Operating Shift Managers or designee and used to evaluate the effectiveness of the contractor's control methods.
- 5.7.7.3 Any need for corrective actions shall be promptly communicated to contractor supervision.

5.7.8 Crusher Crude Ore Stockpiles: FS 17 (FUGI 14)

- 5.7.8.1 Water may be added to the belts feeding the stockpiles during warm weather.
- 5.7.8.2 Commercial dust suppressants may be added to the belts feeding the stockpiles.

5.7.9 Agglomerator Concentrate Storage Stockpiles: FS 21 (FUGI 15)

- 5.7.9.1 The moisture content of filter cake (concentrate) is carefully controlled to a target range that fulfills operating requirements and minimizes fugitive emissions from the concentrate storage piles.
- 5.7.9.2 Adjustments are made to the filtering process to keep the filter cake moisture within the specified range.

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5.7.10 Agglomerator Pellet Stockpiles: FS 22, 23, & 24 (FUGI 23, 17, 28)

- 5.7.10.1 Water deluge boxes are placed at a number of points along the pellet transfer belts leading to the pellet stockpiles. Water can be added if necessary to control fugitive dust emissions. Pellet moistures are monitored.
- 5.7.10.2 Dead beds of material are maintained in the cooler surge bins on all lines to minimize pellet breakage that later contributes to dust.

5.7.11 Waste Rock Stockpile: FS 26 (FUGI 12)

- 5.7.11.1 Waste rock stockpiles are comprised of blasted waste rock and glacial till. The waste dump surface vegetates itself to some degree. Minntac follows the MNDNR Mine Permit and MNDNR Reclamation Rules (Minn. R. 6130.0100-.6300). This includes designed benches, slopes and vegetate as each segment or lift reaches its final extent. Rock stockpiles are benched and vegetated as each bench and the top surface is completed. Inactive areas that are potential fugitive emission sources will be covered with waste rock.

5.7.12 Crude Ore to Truck or Stockpile: FS 25 (FUGI 9)

- 5.7.12.1 Fugitive emissions are minimal due to natural moisture content. Dust that may be generated is minimized through the material's large size and natural moisture content.
- 5.7.12.2 The drop distance to the truck is minimized to reduce fugitive emissions.

5.7.13 Temporary Crude Ore Stockpiles: FS 27, 28 (FUGI 19, 21)

- 5.7.13.1 Fugitive emissions are minimal due to natural moisture content. Dust that may be generated is minimized through the material's large size and natural moisture content.

5.7.14 Tailings Basin: FS 30 (FUGI 16)

- 5.7.14.1 The number of active fine tailings cells within the tailings basin shall be kept to a minimum.
- 5.7.14.2 When a particular cell is declared inactive, and when the fine tailings contained within the cell will support equipment, mulch shall be added and vegetation established.
- 5.7.14.3 Effective fugitive emission control shall be aided by limiting the size of the individual cells and by maintaining the height of the cell dike above the level of the adjacent fine tailings.
- 5.7.14.4 In non-freezing months, a cell is typically re-flooded to control dust. In freezing months, the inactive cell is seeded and mulched.

5.7.15 Coal Transfer from Truck to Hopper: FS 31 (FUGI 30)

- 5.7.15.1 The drop distance from the truck to hopper is minimized to reduce fugitive emissions.

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5.7.16 Yard areas

5.7.16.1 Yard areas are constructed with sufficient barriers, natural or otherwise, as to reduce the impact of wind carrying fugitives around or off Minntac property.

6.0 Plan Maintenance, Recordkeeping and Reporting

6.1 Plan Revisions

6.1.1. The Fugitive Dust Emission Control Plan may be revised at any time for minor changes that do not require permitting.

6.2 Recordkeeping

6.2.1 All current plans, superseded plans and all information that is necessary to demonstrate that we have complied with each plan requirement will be kept for a period of at least five years. At least three years of records (current year plus two years) will be kept on site. Records older than three years can be stored off-site.

6.2.2 Training records shall be kept in the Learning Management System or the Safety System for a period of 5 years.

6.2.3 Fugitive dust observations and corrective action records shall be kept for 5 years in the following locations:

6.2.3.1 In the Mine, records are kept in the Mine Clerk's office.

6.2.3.2 In the Crusher, records are kept in the Crusher office area.

6.2.3.3 In the Agglomerator, records are kept in the Operations office.

6.2.4 The following records will be maintained at Minntac for the period specified by this permit:

- Application Records for Road Dust Suppressants
- Daily Visible Emissions Checklists
- Work Order Numbers
- Mulching, Seeding, and Dust Suppressant (location, application)
- Tailings deposition locations (yearly map)
- Corrective Action Reports
- Survey Results of Stockpiles
- Employee Training Records
- MPCA Fugitive Emission Plan Approval Letter
- Water Truck Usage Reports

6.2.4.1 Unpaved Roadways (FUGIs 8, 20, 26)

- Daily Visible Emissions Checklist
- Water truck usage report
- Dust suppressant applied (contractor's invoice)

6.2.4.2 Blasting (FUGI 18)

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- Blast Monitor Report
- Blast Day Procedure Checklist

6.2.4.3 Stockpiles – Surface Overburden (FUGI 6), Ballast (FUGIs 11, 29, 22, 5, 4, 25), Group 13 (FUGIs 24, 1, 10), Temporary Crude Ore (FUGIs 19, 21)

- Daily Visible Emissions Checklist (Mine/Tailings Basin)
- DNR Annual Operating and Reclamation Report (Surface Overburden Reclamation Activities)

6.2.4.4 Crusher Crude Ore Stockpile/Material Transfer (FUGI 14)

- Daily Visible Emissions Checklist (Crusher)
- Water application rates (Crusher Operator's Report)
- Dust suppressant applied (contractor's invoice)

6.2.4.5 Agglomerator Concentrate Storage Stockpiles (FUGI 15)

- Daily Visible Emissions Checklist (Step 2 and Step 3 Agglomerators)
- Records required by applicable ISO 9001 filter cake moisture control procedures

6.2.4.6 Agglomerator Pellet Stockpiles and Loadout (FUGIs 23, 17, 28)

- Daily Visible Emissions Checklist (Step 2 and Step 3 Agglomerators)
- Pellet moisture sample analysis results

6.2.4.7 Tailings Basin (FUGI 16)

- DNR Annual Operating and Reclamation Report
- Daily Visible Emissions Checklist (Tailings Basin)

6.2.4.8 Crude Ore to Truck or Stockpile (FUGI 9)

- Daily Visible Emissions Checklist

6.3 Reporting

In the event that excessive fugitive dust that may endanger human health or damage property were to occur, the MPCA Air Compliance Officer will be notified. The notification will include a description of conditions that lead to the event, details of the perceived extent and location of dust leaving the property, an estimated duration of the event, and any preventative actions taken prior to the event and corrective actions being implemented.

Appendix C. 40 CFR Part 60, Subpart A—General Provisions

§ 60.1 Applicability.

- (a) Except as provided in subparts B, Ba, and C of this part, the provisions of this part apply to the owner or operator of any stationary source which contains an affected facility, the construction or modification of which is commenced after the date of publication in this part of any standard (or, if earlier, the date of publication of any proposed standard) applicable to that facility.
- (b) Any new or revised standard of performance promulgated pursuant to section 111(b) of the Act shall apply to the owner or operator of any stationary source which contains an affected facility, the construction or modification of which is commenced after the date of publication in this part of such new or revised standard (or, if earlier, the date of publication of any proposed standard) applicable to that facility.
- (c) In addition to complying with the provisions of this part, the owner or operator of an affected facility may be required to obtain an operating permit issued to stationary sources by an authorized State air pollution control agency or by the Administrator of the U.S. Environmental Protection Agency (EPA) pursuant to Title V of the Clean Air Act (Act) as amended November 15, 1990 (42 U.S.C. 7661). For more information about obtaining an operating permit see part 70 of this chapter.
- (d) *Site-specific standard for Merck & Co., Inc.'s Stonewall Plant in Elkton, Virginia.*
- (1) This paragraph applies only to the pharmaceutical manufacturing facility, commonly referred to as the Stonewall Plant, located at Route 340 South, in Elkton, Virginia ("site").
- (2) Except for compliance with 40 CFR 60.49b(u), the site shall have the option of either complying directly with the requirements of this part, or reducing the site-wide emissions caps in accordance with the procedures set forth in a permit issued pursuant to 40 CFR 52.2454. If the site chooses the option of reducing the site-wide emissions caps in accordance with the procedures set forth in such permit, the requirements of such permit shall apply in lieu of the otherwise applicable requirements of this part.
- (3) Notwithstanding the provisions of paragraph (d)(2) of this section, for any provisions of this part except for Subpart Kb, the owner/operator of the site shall comply with the applicable provisions of this part if the Administrator determines that compliance with the provisions of this part is necessary for achieving the objectives of the regulation and the Administrator notifies the site in accordance with the provisions of the permit issued pursuant to 40 CFR 52.2454.

§ 60.2 Definitions.

The terms used in this part are defined in the Act or in this section as follows:

Act means the Clean Air Act (42 U.S.C. 7401 *et seq.*)

Administrator means the Administrator of the Environmental Protection Agency or his authorized representative.

Affected facility means, with reference to a stationary source, any apparatus to which a standard is applicable.

Alternative method means any method of sampling and analyzing for an air pollutant which is not a reference or equivalent method but which has been demonstrated to the Administrator's satisfaction to, in specific cases, produce results adequate for his determination of compliance.

Approved permit program means a State permit program approved by the Administrator as meeting the requirements of part 70 of this chapter or a Federal permit program established in this chapter pursuant to Title V of the Act (42 U.S.C. 7661).

Capital expenditure means an expenditure for a physical or operational change to an existing facility which exceeds the product of the applicable "annual asset guideline repair allowance percentage" specified in the latest edition of Internal Revenue Service (IRS) Publication 534 and the existing facility's basis, as defined by section 1012 of the Internal Revenue Code. However, the total expenditure for a physical or operational change to an existing facility must not be reduced by any "excluded additions" as defined in IRS Publication 534, as would be done for tax purposes.

Clean coal technology demonstration project means a project using funds appropriated under the heading 'Department of Energy-Clean Coal Technology', up to a total amount of \$2,500,000,000 for commercial demonstrations of clean coal technology, or similar projects funded through appropriations for the Environmental Protection Agency.

Commenced means, with respect to the definition of *new source* in section 111(a)(2) of the Act, that an owner or operator has undertaken a continuous program of construction or modification or that an owner or operator has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of construction or modification.

Construction means fabrication, erection, or installation of an affected facility.

Continuous monitoring system means the total equipment, required under the emission monitoring sections in applicable subparts, used to sample and condition (if applicable), to analyze, and to provide a permanent record of emissions or process parameters.

Electric utility steam generating unit means any steam electric generating unit that is constructed for the purpose of supplying more than one-third of its potential electric output capacity and more than 25 MW electrical output to any utility power distribution system for sale. Any steam supplied to a steam distribution system for the purpose of providing steam to a steam-electric generator that would produce electrical energy for sale is also considered in determining the electrical energy output capacity of the affected facility.

Equivalent method means any method of sampling and analyzing for an air pollutant which has been demonstrated to the Administrator's satisfaction to have a consistent and quantitatively known relationship to the reference method, under specified conditions.

Excess Emissions and Monitoring Systems Performance Report is a report that must be submitted periodically by a source in order to provide data on its compliance with stated emission limits and operating parameters, and on the performance of its monitoring systems.

Existing facility means, with reference to a stationary source, any apparatus of the type for which a standard is promulgated in this part, and the construction or modification of which was commenced before the date of proposal of that standard; or any apparatus which could be altered in such a way as to be of that type.

Force majeure means, for purposes of § 60.8, an event that will be or has been caused by circumstances beyond the control of the affected facility, its contractors, or any entity controlled by the affected facility that prevents the owner or operator from complying with the regulatory requirement to conduct performance tests within the specified timeframe despite the affected facility's best efforts to fulfill the obligation. Examples of such events are acts of nature, acts of war or terrorism, or equipment failure or safety hazard beyond the control of the affected facility.

Isokinetic sampling means sampling in which the linear velocity of the gas entering the sampling nozzle is equal to that of the undisturbed gas stream at the sample point.

Issuance of a part 70 permit will occur, if the State is the permitting authority, in accordance with the requirements of part 70 of this chapter and the applicable, approved State permit program. When the EPA is the permitting authority, issuance of a Title V permit occurs immediately after the EPA takes final action on the final permit.

Malfunction means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

Modification means any physical change in, or change in the method of operation of, an existing facility which increases the amount of any air pollutant (to which a standard applies) emitted into the atmosphere by that facility or which results in the emission of any air pollutant (to which a standard applies) into the atmosphere not previously emitted.

Monitoring device means the total equipment, required under the monitoring of operations sections in applicable subparts, used to measure and record (if applicable) process parameters.

Nitrogen oxides means all oxides of nitrogen except nitrous oxide, as measured by test methods set forth in this part.

One-hour period means any 60-minute period commencing on the hour.

Opacity means the degree to which emissions reduce the transmission of light and obscure the view of an object in the background.

Owner or operator means any person who owns, leases, operates, controls, or supervises an affected facility or a stationary source of which an affected facility is a part.

Part 70 permit means any permit issued, renewed, or revised pursuant to part 70 of this chapter.

Particulate matter means any finely divided solid or liquid material, other than uncombined water, as measured by the reference methods specified under each applicable subpart, or an equivalent or alternative method.

Permit program means a comprehensive State operating permit system established pursuant to title V of the Act (42 U.S.C. 7661) and regulations codified in part 70 of this chapter and applicable State regulations, or a comprehensive Federal operating permit system established pursuant to title V of the Act and regulations codified in this chapter.

Permitting authority means:

(1) The State air pollution control agency, local agency, other State agency, or other agency authorized by the Administrator to carry out a permit program under part 70 of this chapter; or

(2) The Administrator, in the case of EPA-implemented permit programs under title V of the Act (42 U.S.C. 7661).

Proportional sampling means sampling at a rate that produces a constant ratio of sampling rate to stack gas flow rate.

Reactivation of a very clean coal-fired electric utility steam generating unit means any physical change or change in the method of operation associated with the commencement of commercial operations by a coal-fired utility unit after a period of discontinued operation where the unit:

(1) Has not been in operation for the two-year period prior to the enactment of the Clean Air Act Amendments of 1990, and the emissions from such unit continue to be carried in the permitting authority's emissions inventory at the time of enactment;

(2) Was equipped prior to shut-down with a continuous system of emissions control that achieves a removal efficiency for sulfur dioxide of no less than 85 percent and a removal efficiency for particulates of no less than 98 percent;

(3) Is equipped with low-NO_x burners prior to the time of commencement of operations following reactivation; and

(4) Is otherwise in compliance with the requirements of the Clean Air Act.

Reference method means any method of sampling and analyzing for an air pollutant as specified in the applicable subpart.

Repowering means replacement of an existing coal-fired boiler with one of the following clean coal technologies: atmospheric or pressurized fluidized bed combustion, integrated gasification combined cycle, magnetohydrodynamics, direct and indirect coal-fired turbines, integrated gasification fuel cells, or as determined by the Administrator, in consultation with the Secretary of Energy, a derivative of one or more of these technologies, and any other technology capable of controlling multiple combustion emissions simultaneously with improved boiler or generation efficiency and with significantly greater waste reduction relative to the performance of technology in widespread commercial use as of November 15, 1990. Repowering shall also include any oil and/or gas-fired unit which has been awarded clean coal technology demonstration funding as of January 1, 1991, by the Department of Energy.

Run means the net period of time during which an emission sample is collected. Unless otherwise specified, a run may be either intermittent or continuous within the limits of good engineering practice.

Shutdown means the cessation of operation of an affected facility for any purpose.

Six-minute period means any one of the 10 equal parts of a one-hour period.

Standard means a standard of performance proposed or promulgated under this part.

Standard conditions means a temperature of 293 K (68F) and a pressure of 101.3 kilopascals (29.92 in Hg).

Startup means the setting in operation of an affected facility for any purpose.

State means all non-Federal authorities, including local agencies, interstate associations, and State-wide programs, that have delegated authority to implement:

- (1) The provisions of this part; and/or
- (2) the permit program established under part 70 of this chapter. The term State shall have its conventional meaning where clear from the context.

Stationary source means any building, structure, facility, or installation which emits or may emit any air pollutant.

Title V permit means any permit issued, renewed, or revised pursuant to Federal or State regulations established to implement title V of the Act (42 U.S.C. 7661). A title V permit issued by a State permitting authority is called a part 70 permit in this part.

Volatile Organic Compound means any organic compound which participates in atmospheric photochemical reactions; or which is measured by a reference method, an equivalent method, an alternative method, or which is determined by procedures specified under any subpart.

§ 60.3 Units and abbreviations.

Used in this part are abbreviations and symbols of units of measure. These are defined as follows:

(a) System International (SI) units of measure:

A—ampere

g—gram

Hz—hertz

J—joule

K—degree Kelvin

kg—kilogram

m—meter

m³—cubic meter

mg—milligram—10⁻³ gram

mm—millimeter—10⁻³ meter

Mg—megagram—10⁶ gram

mol—mole

N—newton

ng—nanogram—10⁻⁹ gram

nm—nanometer—10⁻⁹ meter

Pa—pascal

s—second

V—volt

W—watt

Ω —ohm

μg —microgram— 10^{-6} gram

(b) Other units of measure:

Btu—British thermal unit

$^{\circ}\text{C}$ —degree Celsius (centigrade)

cal—calorie

cfm—cubic feet per minute

cu ft—cubic feet

dcf—dry cubic feet

dcm—dry cubic meter

dscf—dry cubic feet at standard conditions

dscm—dry cubic meter at standard conditions

eq—equivalent

$^{\circ}\text{F}$ —degree Fahrenheit

ft—feet

gal—gallon

gr—grain

g-eq—gram equivalent

hr—hour

in—inch

k—1,000

l—liter

lpm—liter per minute

lb—pound

meq—milliequivalent

min—minute

ml—milliliter

mol. wt.—molecular weight

ppb—parts per billion

ppm—parts per million

psia—pounds per square inch absolute

psig—pounds per square inch gage

°R—degree Rankine

scf—cubic feet at standard conditions

scfh—cubic feet per hour at standard conditions

scm—cubic meter at standard conditions

sec—second

sq ft—square feet

std—at standard conditions

(c) Chemical nomenclature:

CdS—cadmium sulfide

CO—carbon monoxide

CO₂—carbon dioxide

HCl—hydrochloric acid

Hg—mercury

H₂O—water

H₂S—hydrogen sulfide

H₂SO₄—sulfuric acid

N₂—nitrogen

NO—nitric oxide

NO₂—nitrogen dioxide

NO_x—nitrogen oxides

O₂—oxygen

SO₂—sulfur dioxide

SO₃—sulfur trioxide

SO_x—sulfur oxides

(d) Miscellaneous:

A.S.T.M.—American Society for Testing and Materials

§ 60.4 Address.

- (a) All requests, reports, applications, submittals, and other communications to the Administrator pursuant to this part shall be submitted in duplicate to the appropriate Regional Office of the U.S.

Environmental Protection Agency to the attention of the Director of the Division indicated in the following table.

Table 1 to Paragraph (a)		
Region	Address	State
I	Director, Enforcement and Compliance Assurance Division, U.S. EPA Region I, 5 Post Office Square—Suite 100 (04-2), Boston, MA 02109-3912, Attn: Air Compliance Clerk	Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont.
II	Director, Air and Waste Management Division, U.S. Environmental Protection Agency, Federal Office Building, 26 Federal Plaza (Foley Square), New York, NY 10278	New Jersey, New York, Puerto Rico, Virgin Islands.
III	Director, Air Protection Division, Mail Code 3AP00, 1650 Arch Street, Philadelphia, PA 19103-2029	Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, West Virginia.
IV	Director, Air and Radiation Division, 61 Forsyth Street SW, Atlanta, Georgia 30303-8960	Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee.
V	Director, Air and Radiation Division, U.S. Environmental Protection Agency, 77 West Jackson Boulevard, Chicago, IL 60604-3590	Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin.
VI	Director; Enforcement and Compliance Assurance Division; U.S. Environmental Protection Agency, 1201 Elm Street, Suite 500, Mail Code 6ECD, Dallas, Texas 75270-2102	Arkansas, Louisiana, New Mexico, Oklahoma, Texas.
VII	Director, Air and Waste Management Division, 11201 Renner Boulevard, Lenexa, Kansas 66219	Iowa, Kansas, Missouri, Nebraska.
VIII	Director, Air and Toxics Technical Enforcement Program, Office of Enforcement, Compliance and Environmental Justice, Mail Code 8ENF-AT, 1595 Wynkoop Street, Denver, CO 80202-1129	Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming.
IX	Director, Enforcement and Compliance Assurance Division (ENF 2-1), U.S. Environmental Protection Agency Region IX, 75 Hawthorne Street, San Francisco, CA 94105	Arizona, California, Hawaii and Nevada; the territories of American Samoa and Guam; the Commonwealth of the Northern Mariana Islands; the territories of Baker Island, Howland Island, Jarvis Island, Johnston Atoll, Kingman Reef, Midway Atoll, Palmyra Atoll, and Wake Islands; and certain U.S. Government activities in the freely associated states of the Republic of the Marshall Islands, the Federated States of Micronesia, and the Republic of Palau.
X	Director, Air and Waste Management Division, U.S. Environmental Protection Agency, 1200 Sixth Avenue, Seattle, WA 98101	Alaska, Oregon, Idaho, Washington.

(b) Section 111(c) directs the Administrator to delegate to each State, when appropriate, the authority to implement and enforce standards of performance for new stationary sources located in such State. All information required to be submitted to EPA under paragraph (a) of this section, must also be submitted to the appropriate State Agency of any State to which this authority has been delegated (provided that each specific delegation may except sources from a certain Federal or State reporting requirement). The appropriate mailing address for those States whose delegation request has been approved is as follows:

(1) [Reserved]

(2) State of Alabama: Alabama Department of Environmental Management, P.O. Box 301463, Montgomery, Alabama 36130-1463.

(3) State of Alaska, Department of Environmental Conservation, Pouch O, Juneau, AK 99811.

(4) Arizona:

Arizona Department of Environmental Quality, Suite #160, 1110 West Washington Street, Phoenix, AZ 85007.

Maricopa County Air Quality Department, 301 West Jefferson Street, Phoenix, AZ 85003.

Pima County Department of Environmental Quality, 33 North Stone Avenue, Suite 700, Tucson, AZ 85701.

Pinal County Air Quality Department, 31 North Pinal Street, Building F, Florence, AZ 85132.

Note 1 to paragraph (b)(4):

For tables listing the delegation status of agencies in Region IX, see paragraph (d) of this section.

(5) State of Arkansas: Chief, Division of Air Pollution Control, Arkansas Department of Pollution Control and Ecology, 8001 National Drive, P.O. Box 9583, Little Rock, AR 72209.

(6) California:

Amador Air District, 810 Court Street, Jackson, CA 95642.

Antelope Valley Air Quality Management District, 2551 W Avenue H, Lancaster, CA 93536.

Bay Area Air Quality Management District, 375 Beale Street, Suite 600, San Francisco, CA 94105.

Butte County Air Quality Management District, 629 Entler Avenue, Suite 15, Chico, CA 95928.

Calaveras County Air Pollution Control District, 891 Mountain Ranch Road, Building E, San Andreas, CA 95249.

Colusa County Air Pollution Control District, 100 Sunrise Blvd., Suite A, Colusa, CA 95932-3246.

El Dorado County Air Quality Management District, 330 Fair Lane, Placerville, CA 95667-4100.

Eastern Kern Air Pollution Control District, 2700 "M" Street, Suite 302, Bakersfield, CA 93301-2370.

Feather River Air Quality Management District, 541 Washington Avenue, Yuba City, CA 95991.

Glenn County Air Pollution Control District, 720 N Colusa Street, P.O. Box 351, Willows, CA 95988-0351.

Great Basin Unified Air Pollution Control District, 157 Short Street, Bishop, CA 93514-3537.

Imperial County Air Pollution Control District, 150 South Ninth Street, El Centro, CA 92243-2839.

Lake County Air Quality Management District, 2617 S Main St., Lakeport, CA 95453-5405.

Lassen County Air Pollution Control District, 720 South St., Susanville, CA 96130.

Mariposa County Air Pollution Control District, P.O. Box 5, Mariposa, CA 95338.

Mendocino County Air Quality Management District, 306 E Gobbi Street, Ukiah, CA 95482-5511.

Modoc County Air Pollution Control District, 202 W 4th Street, Alturas, CA 96101.

Mojave Desert Air Quality Management District, 14306 Park Avenue, Victorville, CA 92392-2310.

Monterey Bay Air Resources District, 24580 Silver Cloud Court, Monterey, CA 93940.

North Coast Unified Air Quality Management District, 707 L Street, Eureka, CA 95501-3327.

Northern Sierra Air Quality Management District, 200 Litton Drive, Suite 320, Grass Valley, CA 95945-2509.

Northern Sonoma County Air Pollution Control District, 150 Matheson Street, Healdsburg, CA 95448-4908.

Placer County Air Pollution Control District, 110 Maple Street, Auburn, CA 95603.

Sacramento Metropolitan Air Quality Management District, 777 12th Street, Suite 300, Sacramento, CA 95814-1908.

San Diego County Air Pollution Control District, 10124 Old Grove Road, San Diego, CA 92131-1649.

San Joaquin Valley Air Pollution Control District, 1990 E Gettysburg, Fresno, CA 93726.

San Luis Obispo County Air Pollution Control District, 3433 Roberto Court, San Luis Obispo, CA 93401-7126.

Santa Barbara County Air Pollution Control District, 260 North San Antonio Road, Suite A, Santa Barbara, CA 93110-1315.

Shasta County Air Quality Management District, 1855 Placer Street, Suite 101, Redding, CA 96001-1759.

Siskiyou County Air Pollution Control District, 525 So. Foothill Drive, Yreka, CA 96097-3036.

South Coast Air Quality Management District, 21865 Copley Drive, Diamond Bar, CA 91765-4182.

Tehama County Air Pollution Control District, P.O. Box 1169 (1834 Walnut Street), Red Bluff, CA 96080-0038.

Tuolumne County Air Pollution Control District, 2 South Green St., Sonora, CA 95370-4618.

Ventura County Air Pollution Control District, 4567 Telephone Road, 2nd Floor, Ventura, CA 93003-5417.

Yolo-Solano Air Quality Management District, 1947 Galileo Court, Suite 103, Davis, CA 95618.

Note 2 to paragraph (b)(6):

For tables listing the delegation status of agencies in Region IX, see paragraph (d) of this section.

(7) State of Colorado, Department of Public Health and Environment, 4300 Cherry Creek Drive South, Denver, CO 80222-1530.

Note:

For a table listing Region VIII's NSPS delegation status, see paragraph (c) of this section.

(8) State of Connecticut, Compliance Analysis and Coordination Unit, Bureau of Air Management, Department of Energy and Environmental Protection, 79 Elm Street, 5th Floor, Hartford, CT 06106-5127.

(9) State of Delaware, Department of Natural Resources & Environmental Control, 89 Kings Highway, P.O. Box 1401, Dover, Delaware 19903.

(10) District of Columbia, Department of Public Health, Air Quality Division, 51 N Street, NE., Washington, DC 20002.

(11) State of Florida: Florida Department of Environmental Protection, Division of Air Resources Management, 2600 Blair Stone Road, MS 5500, Tallahassee, Florida 32399-2400.

(12) State of Georgia: Georgia Department of Natural Resources, Environmental Protection Division, Air Protection Branch, 4244 International Parkway, Suite 120, Atlanta, Georgia 30354.

(13) Hawaii:

Clean Air Branch, Hawaii Department of Health, 2827 Waimano Home Road, #130 Pearl City, HI 96782.

Note 4 to paragraph (b)(13):

For tables listing the delegation status of agencies in Region IX, see paragraph (d) of this section.

(14) State of Idaho, Department of Health and Welfare, Statehouse, Boise, ID 83701.

(15) State of Illinois: Illinois Environmental Protection Agency, 1021 North Grand Avenue East, Springfield, Illinois 62794.

(16) State of Indiana: Indiana Department of Environmental Management, Office of Air Quality, 100 North Senate Avenue, Indianapolis, Indiana 46204.

(17) State of Iowa: Iowa Department of Natural Resources, Environmental Protection Division, Air Quality Bureau, 7900 Hickman Road, Suite 1, Urbandale, IA 50322.

(18) State of Kansas: Kansas Department of Health and Environment, Bureau of Air and Radiation, 1000 S.W. Jackson, Suite 310, Topeka, KS 66612-1366.

(19) Commonwealth of Kentucky: Kentucky Department for Environmental Protection, Division for Air Quality, 300 Sower Boulevard, 2nd Floor, Frankfort, Kentucky 40601 or local agency, Louisville Metro Air Pollution Control District, 701 W. Ormsby Ave., Suite 303, Louisville, Kentucky 40203.

(20) State of Louisiana: Louisiana Department of Environmental Quality, P.O. Box 4301, Baton Rouge, Louisiana 70821-4301.

Note:

For a list of delegated standards for Louisiana (excluding Indian country), see paragraph (e)(2) of this section.

(21) State of Maine, Maine Department of Environmental Protection, Bureau of Air Quality, 17 State House Station, Augusta, ME 04333-0017.

(22) State of Maryland, Department of the Environment, 1800 Washington Boulevard, Suite 705, Baltimore, Maryland 21230.

(23) Commonwealth of Massachusetts, Massachusetts Department of Environmental Protection, Division of Air and Climate Programs, One Winter Street, Boston, MA 02108.

(24) State of Michigan: Michigan Department of Natural Resources and Environment, Air Quality Division, P.O. Box 30028, Lansing, Michigan 48909.

(25) State of Minnesota: Minnesota Pollution Control Agency, Division of Air Quality, 520 Lafayette Road North, St. Paul, Minnesota 55155.

(26) State of Mississippi: Hand Deliver or Courier: Mississippi Department of Environmental Quality, Office of Pollution Control, Air Division, 515 East Amite Street, Jackson, Mississippi 39201, Mailing Address: Mississippi Department of Environmental Quality, Office of Pollution Control, Air Division, P.O. Box 2261, Jackson, Mississippi 39225.

(27) State of Missouri: Missouri Department of Natural Resources, Division of Environmental Quality, P.O. Box 176, Jefferson City, MO 65102.

(28) State of Montana, Department of Environmental Quality, 1520 E. 6th Ave., PO Box 200901, Helena, MT 59620-0901.

Note:

For a table listing Region VIII's NSPS delegation status, see paragraph (c) of this section.

(29) State of Nebraska, Nebraska Department of Environmental Control, P.O. Box 94877, State House Station, Lincoln, NE 68509.

Lincoln-Lancaster County Health Department, Division of Environmental Health, 2200 St. Mary's Avenue, Lincoln, NE 68502

(30) Nevada:

Nevada Division of Environmental Protection, 901 South Stewart Street, Suite 4001, Carson City, NV 89701-5249.

Clark County Division of Air Quality, 500 S Grand Central Parkway, 1st Floor, P.O. Box 555210, Las Vegas, NV 89155-5210.

Northern Nevada Public Health, Air Quality Management Division, 1001 E 9th Street, Building B, Reno, NV 89512.

Note 7 to paragraph (b)(30):

For tables listing the delegation status of agencies in Region IX, see paragraph (d) of this section.

(31) State of New Hampshire, New Hampshire Department of Environmental Services, Air Resources Division, 29 Hazen Drive, P.O. Box 95, Concord, NH 03302-0095.

(32) State of New Jersey: New Jersey Department of Environmental Protection, Division of Environmental Quality, Enforcement Element, John Fitch Plaza, CN-027, Trenton, NJ 08625.

(1) The following table lists the specific source and pollutant categories that have been delegated to the states in Region II. The (X) symbol is used to indicate each category that has been delegated.

Subpart	State	New Jersey	New York	Puerto Rico	Virgin Islands
D	Fossil-Fuel Fired Steam Generators for Which Construction Commenced After August 17, 1971 (Steam Generators and Lignite Fired Steam Generators)	X	X	X	X
Da	Electric Utility Steam Generating Units for Which Construction Commenced After September 18, 1978	X		X	
Db	Industrial-Commercial-Institutional Steam Generating Units	X	X	X	X
E	Incinerators	X	X	X	X
F	Portland Cement Plants	X	X	X	X
G	Nitric Acid Plants	X	X	X	X
H	Sulfuric Acid Plants	X	X	X	X
I	Asphalt Concrete Plants	X	X	X	X
J	Petroleum Refineries—(All Categories)	X	X	X	X
K	Storage Vessels for Petroleum Liquids Constructed After June 11, 1973, and prior to May 19, 1978	X	X	X	X
Ka	Storage Vessels for Petroleum Liquids Constructed After May 18, 1978	X	X	X	
L	Secondary Lead Smelters	X	X	X	X
M	Secondary Brass and Bronze Ingot Production Plants	X	X	X	X
N	Iron and Steel Plants	X	X	X	X
O	Sewage Treatment Plants	X	X	X	X
P	Primary Copper Smelters	X	X	X	X
Q	Primary Zinc Smelters	X	X	X	X
R	Primary Lead Smelters	X	X	X	X
S	Primary Aluminum Reduction Plants	X	X	X	X
T	Phosphate Fertilizer Industry: Wet Process Phosphoric Acid Plants	X	X	X	X
U	Phosphate Fertilizer Industry: Superphosphoric Acid Plants	X	X	X	X
V	Phosphate Fertilizer Industry: Diammonium Phosphate Plants	X	X	X	X

	Subpart	State			
		New Jersey	New York	Puerto Rico	Virgin Islands
W	Phosphate Fertilizer Industry: Triple Superphosphate Plants	X	X	X	X
X	Phosphate Fertilizer Industry: Granular Triple Superphosphate	X	X	X	X
Y	Coal Preparation Plants	X	X	X	X
Z	Ferroalloy Production Facilities	X	X	X	X
AA	Steel Plants: Electric Arc Furnaces	X	X	X	X
AAa	Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels in Steel Plants	X	X	X	
BB	Kraft Pulp Mills	X	X	X	
CC	Glass Manufacturing Plants	X	X	X	
DD	Grain Elevators	X	X	X	
EE	Surface Coating of Metal Furniture	X	X	X	
GG	Stationary Gas Turbines	X	X	X	
HH	Lime Plants	X	X	X	
KK	Lead Acid Battery Manufacturing Plants	X	X		
LL	Metallic Mineral Processing Plants	X	X	X	
MM	Automobile and Light-Duty Truck Surface Coating Operations	X	X		
NN	Phosphate Rock Plants	X	X		
PP	Ammonium Sulfate Manufacturing Plants	X	X		
QQ	Graphic Art Industry Publication Rotogravure Printing	X	X	X	X
RR	Pressure Sensitive Tape and Label Surface Coating Operations	X	X	X	
SS	Industrial Surface Coating: Large Appliances	X	X	X	
TT	Metal Coil Surface Coating	X	X	X	
UU	Asphalt Processing and Asphalt Roofing Manufacture	X	X	X	
VV	Equipment Leaks of Volatile Organic Compounds in Synthetic Organic Chemical Manufacturing Industry	X		X	
WW	Beverage Can Surface Coating Industry	X	X	X	
XX	Bulk Gasoline Terminals	X	X	X	
FFF	Flexible Vinyl and Urethane Coating and Printing	X	X	X	

	Subpart	State			
		New Jersey	New York	Puerto Rico	Virgin Islands
GGG	Equipment Leaks of VOC in Petroleum Refineries	X		X	
HHH	Synthetic Fiber Production Facilities	X		X	
JJJ	Petroleum Dry Cleaners	X	X	X	
KKK	Equipment Leaks of VOC from Onshore Natural Gas Processing Plants				
LLL	Onshore Natural Gas Processing Plants; SO ₂ Emissions		X		
OOO	Nonmetallic Mineral Processing Plants		X	X	
PPP	Wool Fiberglass Insulation Manufacturing Plants		X	X	

(33) State of New Mexico: New Mexico Environment Department, P.O. Box 5469, Santa Fe, New Mexico 87502-5469. Note: For a list of delegated standards for New Mexico (excluding Bernalillo County and Indian country), see paragraph (e)(1) of this section.

(34) New York: New York State Department of Environmental Conservation, 50 Wolf Road Albany, New York 12233, attention: Division of Air Resources.

(35) State of North Carolina: North Carolina Department of Environmental Quality, Division of Air Quality, 1641 Mail Service Center, Raleigh, North Carolina 27699-1641 or local agencies, Forsyth County Office of Environmental Assistance and Protection, 201 North Chestnut Street, Winston-Salem, North Carolina 27101-4120; Mecklenburg County Land Use and Environmental Services Agency, Air Quality, 2145 Suttle Avenue, Charlotte, North Carolina 28208; Western North Carolina Regional Air Quality Agency, 125 S. Lexington Ave., Suite 101, Asheville, North Carolina 28801-3661.

(36) State of North Dakota, North Dakota Department of Environmental Quality, 918 East Divide Avenue, Bismarck, ND 58501-1947.

Note:

For a table listing Region VIII's NSPS delegation status, see paragraph (c) of this section.

(37) State of Ohio:

(i) Medina, Summit and Portage Counties; Director, Akron Regional Air Quality Management District, 146 South High Street, Room 904, Akron, OH 44308.

(ii) Stark County; Director, Canton City Health Department, Air Pollution Control Division, 420 Market Avenue North, Canton, Ohio 44702-1544.

(iii) Butler, Clermont, Hamilton, and Warren Counties; Director, Hamilton County Department of Environmental Services, 250 William Howard Taft Road, Cincinnati, Ohio 45219-2660.

(iv) Cuyahoga County; Commissioner, Cleveland Department of Public Health, Division of Air Quality, 75 Erieview Plaza 2nd Floor, Cleveland, Ohio 44114.

- (v) Clark, Darke, Greene, Miami, Montgomery, and Preble Counties; Director, Regional Air Pollution Control Agency, 117 South Main Street, Dayton, Ohio 45422-1280.
 - (vi) Lucas County and the City of Rossford (in Wood County); Director, City of Toledo, Division of Environmental Services, 348 South Erie Street, Toledo, OH 43604.
 - (vii) Adams, Brown, Lawrence, and Scioto Counties; Portsmouth Local Air Agency, 605 Washington Street, Third Floor, Portsmouth, OH 45662.
 - (viii) Allen, Ashland, Auglaize, Crawford, Defiance, Erie, Fulton, Hancock, Hardin, Henry, Huron, Marion, Mercer, Ottawa, Paulding, Putnam, Richland, Sandusky, Seneca, Van Wert Williams, Wood (Except City of Rossford), and Wyandot Counties; Ohio Environmental Protection Agency, Northwest District Office, Air Pollution Control, 347 North Dunbridge Road, Bowling Green, Ohio 43402.
 - (ix) Ashtabula, Carroll, Columbiana, Holmes, Lorain, and Wayne Counties; Ohio Environmental Protection Agency, Northeast District Office, Air Pollution Unit, 2110 East Aurora Road, Twinsburg, OH 44087.
 - (x) Athens, Belmont, Coshocton, Gallia, Guemsey, Harrison, Hocking, Jackson, Jefferson, Meigs, Monroe, Morgan, Muskingum, Noble, Perry, Pike, Ross, Tuscarawas, Vinton, and Washington Counties; Ohio Environmental Protection Agency, Southeast District Office, Air Pollution Unit, 2195 Front Street, Logan, OH 43138.
 - (xi) Champaign, Clinton, Highland, Logan, and Shelby Counties; Ohio Environmental Protection Agency, Southwest District Office, Air Pollution Unit, 401 East Fifth Street, Dayton, Ohio 45402-2911.
 - (xii) Delaware, Fairfield, Fayette, Franklin, Knox, Licking, Madison, Morrow, Pickaway, and Union Counties; Ohio Environmental Protection Agency, Central District Office, Air Pollution control, 50 West Town Street, Suite 700, Columbus, Ohio 43215.
 - (xiii) Geauga and Lake Counties; Lake County General Health District, Air Pollution Control, 33 Mill Street, Painesville, OH 44077.
 - (xiv) Mahoning and Trumbull Counties; Mahoning-Trumbull Air Pollution Control Agency, 345 Oak Hill Avenue, Suite 200, Youngstown, OH 44502.
- (38) State of Oklahoma, Oklahoma State Department of Health, Air Quality Service, P.O. Box 53551, Oklahoma City, OK 73152.
- (i) Oklahoma City and County: Director, Oklahoma City-County Health Department, 921 Northeast 23rd Street, Oklahoma City, OK 73105.
 - (ii) Tulsa County: Tulsa City-County Health Department, 4616 East Fifteenth Street, Tulsa, OK 74112.
- (39) State of Oregon.
- (i) Oregon Department of Environmental Quality (ODEQ), 811 SW Sixth Avenue, Portland, OR 97204-1390, <http://www.deq.state.or.us>.

(ii) Lane Regional Air Pollution Authority (LRAPA), 1010 Main Street, Springfield, Oregon 97477, <http://www.lrapa.org>.

(40)

(i) City of Philadelphia, Department of Public Health, Air Management Services, 321 University Avenue, Philadelphia, Pennsylvania 19104.

(ii) Commonwealth of Pennsylvania, Department of Environmental Protection, Bureau of Air Quality Control, P.O. Box 8468, 400 Market Street, Harrisburg, Pennsylvania 17105.

(iii) Allegheny County Health Department, Bureau of Environmental Quality, Division of Air Quality, 301 39th Street, Pittsburgh, Pennsylvania 15201.

(41) State of Rhode Island, Rhode Island Department of Environmental Management, Office of Air Resources, 235 Promenade Street, Providence, RI 02908.

(42) State of South Carolina: South Carolina Department of Health and Environmental Control, 2600 Bull Street, Columbia, South Carolina 29201.

(43) State of South Dakota, Air Quality Program, Department of Agriculture and Natural Resources, Joe Foss Building, 523 East Capitol, Pierre, SD 57501-3181.

(44) State of Tennessee: Tennessee Department of Environment and Conservation, Division of Air Pollution Control, William R. Snodgrass Tennessee Tower, 312 Rosa L. Parks Avenue, 15th Floor, Nashville, Tennessee 37243, or local agencies, Knox County Air Quality Management—Department of Public Health, 140 Dameron Avenue, Knoxville, Tennessee 37917; Metro Public Health Department, Pollution Control Division, 2500 Charlotte Ave., Nashville, Tennessee 37209; Chattanooga-Hamilton County Air Pollution Control Bureau, 6125 Preservation Drive, Chattanooga, Tennessee 37416; Shelby County Health Department, Pollution Control Section, 814 Jefferson Avenue, Memphis, Tennessee 38105.

(45) State of Texas, Texas Air Control Board, 6330 Highway 290 East, Austin, TX 78723.

(46) State of Utah, Division of Air Quality, Department of Environmental Quality, P.O. Box 144820, Salt Lake City, UT 84114-4820.

Note:

For a table listing Region VIII's NSPS delegation status, see paragraph (c) of this section.

(47) State of Vermont, Agency of Natural Resources, Department of Environmental Conservation, Air Quality and Climate Division, Davis 2, One National Life Drive, Montpelier, VT 05620-3802.

(48) Commonwealth of Virginia, Department of Environmental Quality, 629 East Main Street, Richmond, Virginia 23219.

(49) *State of Washington.*

(i) Washington State Department of Ecology (Ecology), P.O. Box 47600, Olympia, WA 98504-7600, <http://www.ecy.wa.gov/>

(ii) Benton Clean Air Authority (BCAA), 650 George Washington Way, Richland, WA 99352-4289, <http://www.bcaa.net/>

(iii) Northwest Air Pollution Control Authority (NWAPA), 1600 South Second St., Mount Vernon, WA 98273-5202, <http://www.nwair.org/>

(iv) Olympic Regional Clean Air Agency (ORCAA), 909 Sleater-Kinney Road S.E., Suite 1, Lacey, WA 98503-1128, <http://www.orcaa.org/>

(v) Puget Sound Clean Air Agency (PSCAA), 110 Union Street, Suite 500, Seattle, WA 98101-2038, <http://www.pscleanair.org/>

(vi) Spokane County Air Pollution Control Authority (SCAPCA), West 1101 College, Suite 403, Spokane, WA 99201, <http://www.scapca.org/>

(vii) Southwest Clean Air Agency (SWCAA), 1308 NE. 134th St., Vancouver, WA 98685-2747, <http://www.swcleanair.org/>

(viii) Yakima Regional Clean Air Authority (YRCAA), 6 South 2nd Street, Suite 1016, Yakima, WA 98901, <http://co.yakima.wa.us/cleanair/default.htm>

(ix) The following table lists the delegation status of the New Source Performance Standards for the State of Washington. An "X" indicates the subpart has been delegated, subject to all the conditions and limitations set forth in Federal law and the letters granting delegation. Some authorities cannot be delegated and are retained by EPA. Refer to the letters granting delegation for a discussion of these retained authorities. The dates noted at the end of the table indicate the effective dates of Federal rules that have been delegated. Authority for implementing and enforcing any amendments made to these rules after these effective dates are not delegated.

NSPS Subparts Delegated to Washington Air Agencies

Subpart ¹	Washington							
	Ecology ²	BCAA ³	NWAPA ⁴	ORCAA ⁵	PSCAA ⁶	SCAPCA ⁷	SWCAA ⁸	YRCAA ⁹
A General Provisions	X	X	X	X	X	X	X	X
B Adoption and Submittal of State Plans for Designated Facilities								
C Emission Guidelines and Compliance Times								
Cb Large Municipal Waste Combustors that are Constructed on or before September 20, 1994 (Emission Guidelines and Compliance Times)								
Cc Municipal Solid Waste Landfills (Emission Guidelines and Compliance Times)								
Cd Sulfuric Acid Production Units (Emission Guidelines and Compliance Times)								
Ce Hospital/Medical/Infectious Waste Incinerators (Emission Guidelines and Compliance Times)								

NSPS Subparts Delegated to Washington Air Agencies

Subpart ¹	Washington							
	Ecology ²	BCAA ³	NWAPA ⁴	ORCAA ⁵	PSCAA ⁶	SCAPCA ⁷	SWCAA ⁸	YRCAA ⁹
D Fossil-Fuel-Fired Steam Generators for which Construction is Commenced after August 17, 1971	X	X	X	X	X	X	X	X
Da Electric Utility Steam Generating Units for which Construction is Commenced after September 18, 1978	X	X	X	X	X	X	X	X
Db Industrial-Commercial-Institutional Steam Generating Units	X	X	X	X	X	X	X	X
Dc Small Industrial-Commercial-Institutional Steam Generating Units	X	X	X	X	X	X	X	X
E Incinerators	X	X	X	X	X	X	X	X
Ea Municipal Waste Combustors for which Construction is Commenced after December 20, 1989 and on or before September 20, 1994	X	X	X	X	X	X	X	X
Eb—Large Municipal Waste Combustors		X		X	X	X		
Ec—Hospital/Medical/Infectious Waste Incinerators	X	X	X	X	X	X		
F Portland Cement Plants	X	X	X	X	X	X	X	X
G Nitric Acid Plants	X	X	X	X	X	X	X	X
H Sulfuric Acid Plants	X	X	X	X	X	X	X	X
I Hot Mix Asphalt Facilities	X	X	X	X	X	X	X	X
J Petroleum Refineries	X	X	X	X	X	X	X	X
K Storage Vessels for Petroleum Liquids for which Construction, Reconstruction, or Modification Commenced after June 11, 1973 and prior to May 19, 1978	X	X	X	X	X	X	X	X
Ka Storage Vessels for Petroleum Liquids for which Construction, Reconstruction, or Modification Commenced after May 18, 1978 and prior to July 23, 1984	X	X	X	X	X	X	X	X
Kb VOC Liquid Storage Vessels (including Petroleum Liquid Storage Vessels) for which Construction, Reconstruction, or Modification Commenced after July 23, 1984	X	X	X	X	X	X	X	X
L Secondary Lead Smelters	X	X	X	X	X	X	X	X
M Secondary Brass and Bronze Production Plants	X	X	X	X	X	X	X	X
N Primary Emissions from Basic Oxygen Process Furnaces for which Construction is Commenced after June 11, 1973	X	X	X	X	X	X	X	X

NSPS Subparts Delegated to Washington Air Agencies								
Subpart ¹	Washington							
	Ecology ²	BCAA ³	NWAPA ⁴	ORCAA ⁵	PSCAA ⁶	SCAPCA ⁷	SWCAA ⁸	YRCAA ⁹
Na Secondary Emissions from Basic Oxygen Process Steel-making Facilities for which Construction is Commenced after January 20, 1983	X	X	X	X	X	X	X	X
O Sewage Treatment Plants	X	X	X	X	X	X	X	X
P Primary Copper Smelters	X	X	X	X	X	X	X	X
Q Primary Zinc Smelters	X	X	X	X	X	X	X	X
R Primary Lead Smelters	X	X	X	X	X	X	X	X
S Primary Aluminum Reduction Plants ¹⁰	X							
T Phosphate Fertilizer Industry: Wet Process Phosphoric Acid Plants	X	X	X	X	X	X	X	X
U Phosphate Fertilizer Industry: Superphosphoric Acid Plants	X	X	X	X	X	X	X	X
V Phosphate Fertilizer Industry: Diammonium Phosphate Plants	X	X	X	X	X	X	X	X
W Phosphate Fertilizer Industry: Triple Superphosphate Plants	X	X	X	X	X	X	X	X
X Phosphate Fertilizer Industry: Granular Triple Superphosphate Storage Facilities	X	X	X	X	X	X	X	X
Y Coal Preparation Plants	X	X	X	X	X	X	X	X
Z Ferroalloy Production Facilities	X	X	X	X	X	X	X	X
AA Steel Plants: Electric Arc Furnaces Constructed after October 21, 1974 and on or before August 17, 1983	X	X	X	X	X	X	X	X
AAa Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed after August 7, 1983	X	X	X	X	X	X	X	X
BB Kraft Pulp Mills ¹¹	X							
CC Glass Manufacturing Plants	X	X	X	X	X	X	X	X
DD Grain Elevators	X	X	X	X	X	X	X	X
EE Surface Coating of Metal Furniture	X	X	X	X	X	X	X	X
GG Stationary Gas Turbines	X	X	X	X	X	X	X	X
HH Lime Manufacturing Plants	X	X	X	X	X	X	X	X
KK Lead-Acid Battery Manufacturing Plants	X	X	X	X	X	X	X	X

Permit Issued: [month day, year]

Permit Expires: [month day, year]

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NSPS Subparts Delegated to Washington Air Agencies

Subpart ¹	Washington							
	Ecology ²	BCAA ³	NWAPA ⁴	ORCAA ⁵	PSCAA ⁶	SCAPCA ⁷	SWCAA ⁸	YRCAA ⁹
LL Metallic Mineral Processing Plants	X	X	X	X	X	X	X	X
MM Automobile and Light Duty Truck Surface Coating Operations	X	X	X	X	X	X	X	X
NN Phosphate Rock Plants	X	X	X	X	X	X	X	X
PP Ammonium Sulfate Manufacture	X	X	X	X	X	X	X	X
QQ Graphic Arts Industry: Publication Rotogravure Printing	X	X	X	X	X	X	X	X
RR Pressure Sensitive Tape and Label Surface Coating Standards	X	X	X	X	X	X	X	X
SS Industrial Surface Coating: Large Appliances	X	X	X	X	X	X	X	X
TT Metal Coil Surface Coating	X	X	X	X	X	X	X	X
UU Asphalt Processing and Asphalt Roof Manufacture	X	X	X	X	X	X	X	X
VV Equipment Leaks of VOC in Synthetic Organic Chemical Manufacturing Industry	X	X	X	X	X	X	X	X
WW Beverage Can Surface Coating Industry	X	X	X	X	X	X	X	X
XX Bulk Gasoline Terminals	X	X	X	X	X	X	X	X
AAA New Residential Wood Heaters								
BBB Rubber Tire Manufacturing Industry	X	X	X	X	X	X	X	X
DDD VOC Emissions from Polymer Manufacturing Industry	X	X	X	X	X	X	X	X
FFF Flexible Vinyl and Urethane Coating and Printing	X	X	X	X	X	X	X	X
GGG Equipment Leaks of VOC in Petroleum Refineries	X	X	X	X	X	X	X	X
HHH Synthetic Fiber Production Facilities	X	X	X	X	X	X	X	X
III VOC Emissions from Synthetic Organic Chemical Manufacturing Industry Air Oxidation Unit Processes	X	X	X	X	X	X	X	X
JJJ Petroleum Dry Cleaners	X	X	X	X	X	X	X	X
KKK Equipment Leaks of VOC from Onshore Natural Gas Processing Plants	X	X	X	X	X	X	X	X
LLL Onshore Natural Gas Processing: SO ₂ Emissions	X	X	X	X	X	X	X	X
NNN VOC Emissions from Synthetic Organic Chemical Manufacturing Industry Distillation Operations	X	X	X	X	X	X	X	X

NSPS Subparts Delegated to Washington Air Agencies

Subpart ¹	Washington							
	Ecology ²	BCAA ³	NWAPA ⁴	ORCAA ⁵	PSCAA ⁶	SCAPCA ⁷	SWCAA ⁸	YRCAA ⁹
OOO Nonmetallic Mineral Processing Plants			X		X		X	
PPP Wool Fiberglass Insulation Manufacturing Plants	X	X	X	X	X	X	X	X
QQQ VOC Emissions from Petroleum Refinery Wastewater Systems	X	X	X	X	X	X	X	X
RRR VOCs from Synthetic Organic Chemical Manufacturing Industry Reactor Processes	X	X	X	X	X	X	X	X
SSS Magnetic Tape Coating Facilities	X	X	X	X	X	X	X	X
TTT Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machines	X	X	X	X	X	X	X	X
UUU Calciners and Dryers in Mineral Industries	X	X	X	X	X	X	X	X
VVV Polymeric Coating of Supporting Substrates Facilities	X	X	X	X	X	X	X	X
WWW Municipal Solid Waste Landfills	X	X	X	X	X	X	X	X
AAA Small Municipal Waste Combustion Units for which Construction is Commenced after August 30, 1999 or for which Modification or Reconstruction is Commenced after June 6, 2001	X	X		X	X	X		X
BBB Small Municipal Waste Combustion Units Constructed on or before August 30, 1999 (Emission Guidelines and Compliance Times)								
CCC Commercial and Industrial Solid Waste Incineration Units for which Construction is Commenced after November, 30, 1999 or for which Modification or Reconstruction is Commenced on or after June 1, 2001	X	X		X	X	X		X
DDD Commercial and Industrial Solid Waste Incineration Units that Commenced Construction on or before November 30, 1999 (Emission Guidelines and Compliance Times)								

¹ Any authority within any subpart of this part that is not delegable, is not delegated. Please refer to Attachment B to the delegation letters for a listing of the NSPS authorities excluded from delegation.

² Washington State Department of Ecology, for 40 CFR 60.17(h)(1), (h)(2), (h)(3) and 40 CFR part 60, subpart AAAA, as in effect on June 6, 2001; for 40 CFR part 60, subpart CCCC, as in effect on June 1, 2001; and for all other NSPS delegated, as in effect February 20, 2001.

³ Benton Clean Air Authority, for 40 CFR 60.17(h)(1), (h)(2), (h)(3) and 40 CFR part 60, subpart AAAAA, as in effect on June 6, 2001; for 40 CFR part 60, subpart CCCC, as in effect on June 1, 2001; and for all other NSPS delegated, as in effect February 20, 2001.

⁴ Northwest Air Pollution Authority, for all NSPS delegated, as in effect on July 1, 2000.

NSPS Subparts Delegated to Washington Air Agencies								
Subpart ¹	Washington							
	Ecology ²	BCAA ³	NWAPA ⁴	ORCAA ⁵	PSCAA ⁶	SCAPCA ⁷	SWCAA ⁸	YRCAA ⁹
⁵ Olympic Regional Clean Air Authority, for 40 CFR 60.17(h)(1), (h)(2), (h)(3) and 40 CFR part 60, subpart AAAA, as in effect on June 6, 2001; for 40 CFR part 60, subpart CCCC, as in effect on June 1, 2001; and for all other NSPS delegated, as in effect February 20, 2001.								
⁶ Puget Sound Clean Air Authority, for all NSPS delegated, as in effect on July 1, 2002.								
⁷ Spokane County Air Pollution Control Authority, for 40 CFR 60.17(h)(1), (h)(2), (h)(3) and 40 CFR part 60, subpart AAAA, as in effect on June 6, 2001; for 40 CFR part 60, subpart CCCC, as in effect on June 1, 2001; and for all other NSPS delegated, as in effect February 20, 2001.								
⁸ Southwest Clean Air Agency, for all NSPS delegated, as in effect on July 1, 2000.								
⁹ Yakima Regional Clean Air Authority, for 40 CFR 60.17(h)(1), (h)(2), (h)(3) and 40 CFR part 60, subpart AAAA, as in effect on June 6, 2001; for 40 CFR part 60, subpart CCCC, as in effect on June 1, 2001; and for all other NSPS delegated, as in effect February 20, 2001.								
¹⁰ Subpart S of this part is not delegated to local agencies in Washington because the Washington State Department of Ecology retains sole authority to regulate Primary Aluminum Plants, pursuant to Washington Administrative Code 173-415-010.								
¹¹ Subpart BB of this part is not delegated to local agencies in Washington because the Washington State Department of Ecology retains sole authority to regulate Kraft and Sulfite Pulping Mills, pursuant to Washington State Administrative Code 173-405-012 and 173-410-012.								

(50) State of West Virginia, Department of Environmental Protection, Division of Air Quality, 601 57th Street, SE., Charleston, West Virginia 25304.

(51) State of Wisconsin: Wisconsin Department of Natural Resources, 101 South Webster St., P.O. Box 7921, Madison, Wisconsin 53707-7921.

(52) State of Wyoming, Department of Environmental Quality, Air Quality Division, Herschler Building, 122 West 25th Street, Cheyenne, WY 82002.

Note:

For a table listing Region VIII's NSPS delegation status, see paragraph (c) of this section.

(53) Territory of Guam: Guam Environmental Protection Agency, P.O. Box 22439 GMF, Barrigada, Guam 96921.

Note:

For tables listing the delegation status of agencies in Region IX, see paragraph (d) of this section.

(54) Commonwealth of Puerto Rico: Commonwealth of Puerto Rico Environmental Quality Board, P.O. Box 11488, Santurce, PR 00910, Attention: Air Quality Area Director (see table under § 60.4(b)(FF)(1)).

(55) U.S. Virgin Islands: U.S. Virgin Islands Department of Conservation and Cultural Affairs, P.O. Box 578, Charlotte Amalie, St. Thomas, VI 00801.

(56) American Samoa: American Samoa Environmental Protection Agency, P.O. Box PPA, Pago Pago, American Samoa 96799.

Note:

For tables listing the delegation status of agencies in Region IX, see paragraph (d) of this section.

(57) Commonwealth of the Northern Mariana Islands: CNMI Division of Environmental Quality, P.O. Box 501304, Saipan, MP 96950.

Note:

For tables listing the delegation status of agencies in Region IX, see paragraph (d) of this section.

(c) The delegation status table for New Source Performance Standards for Region VIII can be found online at <http://www2.epa.gov/region8/air-program>.

(d) The following tables list the specific part 60 standards that have been delegated unchanged to the air pollution control agencies in Region IX. The (X) symbol is used to indicate each standard that has been delegated. The following provisions of this subpart are not delegated: §§ 60.4(b), 60.8(b), 60.9, 60.11(b), 60.11(e), 60.13(a), 60.13(d)(2), 60.13(g), 60.13(i).

(1) *Arizona*. The following table identifies delegations for Arizona:

Table 3 to Paragraph (d)(1)—Delegation Status for New Source Performance Standards for Arizona

	Subpart	Air pollution control agency			
		Arizona DEQ	Maricopa County	Pima County	Pinal County
A	General Provisions	X	X	X	X
D	Fossil-Fuel Fired Steam Generators Constructed After August 17, 1971	X	X	X	X
Da	Electric Utility Steam Generating Units Constructed After September 18, 1978	X	X	X	X
Db	Industrial-Commercial-Institutional Steam Generating Units	X	X	X	X
Dc	Small Industrial-Commercial-Institutional Steam Generating Units	X	X	X	X
E	Incinerators	X	X	X	X
Ea	Municipal Waste Combustors Constructed After December 20, 1989 and On or Before September 20, 1994	X	X	X	X
Eb	Large Municipal Waste Combustors Constructed After September 20, 1994	X	X	X	
Ec	Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996	X	X	X	
F	Portland Cement Plants	X		X	X
G	Nitric Acid Plants	X	X	X	X
Ga	Nitric Acid Plants For Which Construction, Reconstruction or Modification Commenced After October 14, 2011		X	X	
H	Sulfuric Acid Plant	X	X	X	X

Table 3 to Paragraph (d)(1)—Delegation Status for New Source Performance Standards for Arizona

	Subpart	Air pollution control agency			
		Arizona DEQ	Maricopa County	Pima County	Pinal County
I	Hot Mix Asphalt Facilities	X	X	X	X
J	Petroleum Refineries	X		X	X
Ja	Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007			X	
K	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978	X	X	X	X
Ka	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984	X	X	X	X
Kb	Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984	X	X	X	X
L	Secondary Lead Smelters	X		X	X
M	Secondary Brass and Bronze Production Plants	X	X	X	X
N	Primary Emissions from Basic Oxygen Process Furnaces for Which Construction is Commenced After June 11, 1973	X	X	X	X
Na	Secondary Emissions from Basic Oxygen Process Steelmaking Facilities for Which Construction is Commenced After January 20, 1983	X	X	X	X
O	Sewage Treatment Plants	X	X	X	X
P	Primary Copper Smelters	X		X	X
Q	Primary Zinc Smelters	X		X	X
R	Primary Lead Smelters	X		X	X
S	Primary Aluminum Reduction Plants	X	X	X	X
T	Phosphate Fertilizer Industry: Wet Process Phosphoric Acid Plants	X	X	X	X
U	Phosphate Fertilizer Industry: Superphosphoric Acid Plants	X	X	X	X
V	Phosphate Fertilizer Industry: Diammonium Phosphate Plants	X	X	X	X
W	Phosphate Fertilizer Industry: Triple Superphosphate Plants	X	X	X	X
X	Phosphate Fertilizer Industry: Granular Triple Superphosphate Storage Facilities	X	X	X	X
Y	Coal Preparation and Processing Plants	X	X	X	X
Z	Ferroalloy Production Facilities	X	X	X	X

Table 3 to Paragraph (d)(1)—Delegation Status for New Source Performance Standards for Arizona

	Subpart	Air pollution control agency			
		Arizona DEQ	Maricopa County	Pima County	Pinal County
AA	Steel Plants: Electric Arc Furnaces Constructed After October 21, 1974 and On or Before August 17, 1983	X	X	X	X
AAa	Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 7, 1983	X	X	X	X
BB	Kraft Pulp Mills	X	X	X	X
BBa	Kraft Pulp Mill Sources for which Construction, Reconstruction or Modification Commenced after May 23, 2013		X	X	
CC	Glass Manufacturing Plants	X	X	X	X
DD	Grain Elevators	X	X	X	X
EE	Surface Coating of Metal Furniture	X	X	X	X
FF	(Reserved)				
GG	Stationary Gas Turbines	X	X	X	X
HH	Lime Manufacturing Plants	X	X	X	X
KK	Lead-Acid Battery Manufacturing Plants	X	X	X	X
LL	Metallic Mineral Processing Plants	X	X	X	X
MM	Automobile and Light Duty Trucks Surface Coating Operations	X	X	X	X
NN	Phosphate Rock Plants	X	X	X	X
PP	Ammonium Sulfate Manufacture	X	X	X	X
QQ	Graphic Arts Industry: Publication Rotogravure Printing	X	X	X	X
RR	Pressure Sensitive Tape and Label Surface Coating Operations	X	X	X	X
SS	Industrial Surface Coating: Large Appliances	X	X	X	X
TT	Metal Coil Surface Coating	X	X	X	X
UU	Asphalt Processing and Asphalt Roofing Manufacture	X	X	X	X
VV	Equipment Leaks of VOC in the Synthetic Organic Industry Chemicals Manufacturing	X	X	X	X
VVa	Equipment Leaks of VOC in the Synthetic Organic Industry for Which Construction, Reconstruction, or Chemicals Manufacturing Modification Commenced After November 7, 2006	X	X	X	
WW	Beverage Can Surface Coating Industry	X	X	X	X

Table 3 to Paragraph (d)(1)—Delegation Status for New Source Performance Standards for Arizona

	Subpart	Air pollution control agency			
		Arizona DEQ	Maricopa County	Pima County	Pinal County
XX	Bulk Gasoline Terminals	X	X	X	X
AAA	New Residential Wood Heaters	X	X	X	X
BBB	Rubber Tire Manufacturing Industry	X	X	X	X
CCC	(Reserved)				
DDD	Volatile Organic Compounds (VOC) Emissions from the Polymer Manufacturing Industry	X	X	X	X
EEE	(Reserved)				
FFF	Flexible Vinyl and Urethane Coating and Printing	X	X	X	X
GGG	Equipment Leaks of VOC in Petroleum Refineries	X		X	X
GGGa	Equipment Leaks of VOC in Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006	X		X	
HHH	Synthetic Fiber Production Facilities	X	X	X	X
III	Volatile Organic Compound (VOC) Emissions From the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes	X	X	X	X
JJJ	Petroleum Dry Cleaners	X	X	X	X
KKK	Equipment Leaks of VOC From Onshore Natural Gas Processing Plants	X	X	X	X
LLL	Onshore Natural Gas Processing: SO ₂ Emissions	X	X	X	X
MMM	(Reserved)				
NNN	Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations	X	X	X	X
OOO	Nonmetallic Mineral Processing Plants	X	X	X	X
PPP	Wool Fiberglass Insulation Manufacturing Plants	X	X	X	X
QQQ	VOC Emissions From Petroleum Refinery Wastewater Systems	X		X	X
RRR	Volatile Organic Compound Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes	X	X	X	
SSS	Magnetic Tape Coating Facilities	X	X	X	X
TTT	Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machines	X	X	X	X
UUU	Calciners and Dryers in Mineral Industries	X	X	X	
VVV	Polymeric Coating of Supporting Substrates Facilities	X	X	X	X

Table 3 to Paragraph (d)(1)—Delegation Status for New Source Performance Standards for Arizona

	Subpart	Air pollution control agency			
		Arizona DEQ	Maricopa County	Pima County	Pinal County
WWW	Municipal Solid Waste Landfills	X	X	X	
XXX	Municipal Solid Waste Landfills that Commenced Construction, Reconstruction, or Modification After July 17, 2014		X	X	
AAAA	Small Municipal Waste Combustion Units for Which Construction is Commenced After August 30, 1999 or for Which Modification or Reconstruction is Commenced After June 6, 2001	X	X	X	
CCCC	Commercial and Industrial Solid Waste Incineration Units for Which Construction Is Commenced After November 30, 1999 or for Which Modification or Reconstruction Is Commenced on or After June 1, 2001	X	X	X	
EEEE	Other Solid Waste Incineration Units for Which Construction is Commenced After December 9, 2004, or for Which Modification or Reconstruction is Commenced on or After June 16, 2006	X	X	X	
GGGG	(Reserved)				
HHHH	(Reserved)				
IIII	Stationary Compression Ignition Internal Combustion Engines	X	X	X	
JJJJ	Stationary Spark Ignition Internal Combustion Engines		X	X	
KKKK	Stationary Combustion Turbines	X	X	X	
LLLL	New Sewage Sludge Incineration Units			X	
MMMM	Emissions Guidelines and Compliance Times for Existing Sewage Sludge Incineration Units	X			
OOOO	Crude Oil and Natural Gas Production, Transmission, and Distribution		X	X	
OOOOa	Standards of Performance for Crude Oil and Natural Gas Facilities for Which Construction, Modification or Reconstruction Commenced After September 18, 2015		X	X	
QQQQ	Standards of Performance for New Residential Hydronic Heaters and Forced-Air Furnaces		X	X	
TTTT	Standards of Performance for Greenhouse Gas Emissions for Electric Generating Units		X	X	

(2) *California*. The following tables identify delegations for each of the local air pollution control agencies of California.

(i) Delegations for Amador County Air Pollution Control District, Antelope Valley Air Quality Management District, Bay Area Air Quality Management District, and Butte County Air Quality Management District are shown in the following table:

Table 4 to Paragraph (d)(2)(i)—Delegation Status for New Source Performance Standards for Amador County APCD, Antelope Valley AQMD, Bay Area AQMD, and Butte County AQMD

	Subpart	Air pollution control agency			
		Amador County APCD	Antelope Valley AQMD	Bay Area AQMD	Butte County AQMD
A	General Provisions		X		
Ba	Adoption and Submittal of State Plans for Designated Facilities		X		
Cf	Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills		X		
D	Fossil-Fuel Fired Steam Generators Constructed After August 17, 1971		X	X	
Da	Electric Utility Steam Generating Units Constructed After September 18, 1978		X	X	
Db	Industrial-Commercial-Institutional Steam Generating Units		X	X	
Dc	Small Industrial-Commercial-Institutional Steam Generating Units		X	X	
E	Incinerators		X	X	
Ea	Municipal Waste Combustors Constructed After December 20, 1989 and On or Before September 20, 1994		X	X	
Eb	Large Municipal Waste Combustors Constructed After September 20, 1994		X		
Ec	Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996		X		
F	Portland Cement Plants		X	X	
G	Nitric Acid Plants		X	X	
Ga	Nitric Acid Plants For Which Construction, Reconstruction or Modification Commenced After October 14, 2011		X		
H	Sulfuric Acid Plant		X	X	
I	Hot Mix Asphalt Facilities		X	X	
J	Petroleum Refineries		X	X	
Ja	Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007		X		
K	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978		X	X	
Ka	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984		X	X	
Kb	Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984		X	X	

Table 4 to Paragraph (d)(2)(i)—Delegation Status for New Source Performance Standards for Amador County APCD, Antelope Valley AQMD, Bay Area AQMD, and Butte County AQMD

	Subpart	Air pollution control agency			
		Amador County APCD	Antelope Valley AQMD	Bay Area AQMD	Butte County AQMD
L	Secondary Lead Smelters		X	X	
M	Secondary Brass and Bronze Production Plants		X	X	
N	Primary Emissions from Basic Oxygen Process Furnaces for Which Construction is Commenced After June 11, 1973		X	X	
Na	Secondary Emissions from Basic Oxygen Process Steelmaking Facilities for Which Construction is Commenced After January 20, 1983		X	X	
O	Sewage Treatment Plants		X	X	
P	Primary Copper Smelters		X	X	
Q	Primary Zinc Smelters		X	X	
R	Primary Lead Smelters		X	X	
S	Primary Aluminum Reduction Plants		X	X	
T	Phosphate Fertilizer Industry: Wet Process Phosphoric Acid Plants		X		
U	Phosphate Fertilizer Industry: Superphosphoric Acid Plants		X	X	
V	Phosphate Fertilizer Industry: Diammonium Phosphate Plants		X	X	
W	Phosphate Fertilizer Industry: Triple Superphosphate Plants		X	X	
X	Phosphate Fertilizer Industry: Granular Triple Superphosphate Storage Facilities		X	X	
Y	Coal Preparation and Processing Plants		X	X	
Z	Ferroalloy Production Facilities		X	X	
AA	Steel Plants: Electric Arc Furnaces Constructed After October 21, 1974 and On or Before August 17, 1983		X	X	
AAa	Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 7, 1983		X	X	
BB	Kraft Pulp Mills		X	X	
BBa	Kraft Pulp Mill Sources for which Construction, Reconstruction or Modification Commenced after May 23, 2013		X		
CC	Glass Manufacturing Plants		X	X	
DD	Grain Elevators		X	X	

Table 4 to Paragraph (d)(2)(i)—Delegation Status for New Source Performance Standards for Amador County APCD, Antelope Valley AQMD, Bay Area AQMD, and Butte County AQMD

	Subpart	Air pollution control agency			
		Amador County APCD	Antelope Valley AQMD	Bay Area AQMD	Butte County AQMD
EE	Surface Coating of Metal Furniture		X	X	
FF	(Reserved)				
GG	Stationary Gas Turbines		X	X	
HH	Lime Manufacturing Plants		X	X	
KK	Lead-Acid Battery Manufacturing Plants		X	X	
LL	Metallic Mineral Processing Plants		X	X	
MM	Automobile and Light Duty Trucks Surface Coating Operations		X	X	
NN	Phosphate Rock Plants		X	X	
PP	Ammonium Sulfate Manufacture		X	X	
QQ	Graphic Arts Industry: Publication Rotogravure Printing		X	X	
RR	Pressure Sensitive Tape and Label Surface Coating Operations		X	X	
SS	Industrial Surface Coating: Large Appliances		X	X	
TT	Metal Coil Surface Coating		X	X	
UU	Asphalt Processing and Asphalt Roofing Manufacture		X	X	
VV	Equipment Leaks of VOC in the Synthetic Organic Industry Chemicals Manufacturing		X	X	
VVa	Equipment Leaks of VOC in the Synthetic Organic Industry for Which Construction, Reconstruction, or Chemicals Manufacturing Modification Commenced After November 7, 2006		X		
WW	Beverage Can Surface Coating Industry		X	X	
XX	Bulk Gasoline Terminals				
AAA	New Residential Wood Heaters		X	X	
BBB	Rubber Tire Manufacturing Industry		X	X	
CCC	(Reserved)				
DDD	Volatile Organic Compounds (VOC) Emissions from the Polymer Manufacturing Industry		X	X	
EEE	(Reserved)				
FFF	Flexible Vinyl and Urethane Coating and Printing		X	X	

Table 4 to Paragraph (d)(2)(i)—Delegation Status for New Source Performance Standards for Amador County APCD, Antelope Valley AQMD, Bay Area AQMD, and Butte County AQMD

	Subpart	Air pollution control agency			
		Amador County APCD	Antelope Valley AQMD	Bay Area AQMD	Butte County AQMD
GGG	Equipment Leaks of VOC in Petroleum Refineries		X	X	
GGGa	Equipment Leaks of VOC in Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006		X		
HHH	Synthetic Fiber Production Facilities		X	X	
III	Volatile Organic Compound (VOC) Emissions From the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes		X		
JJJ	Petroleum Dry Cleaners		X	X	
KKK	Equipment Leaks of VOC From Onshore Natural Gas Processing Plants		X	X	
LLL	Onshore Natural Gas Processing: SO ₂ Emissions		X		
MMM	(Reserved)				
NNN	Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations		X	X	
OOO	Nonmetallic Mineral Processing Plants		X	X	
PPP	Wool Fiberglass Insulation Manufacturing Plants		X	X	
QQQ	VOC Emissions From Petroleum Refinery Wastewater Systems		X		
RRR	Volatile Organic Compound Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes		X		
SSS	Magnetic Tape Coating Facilities		X	X	
TTT	Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machines		X	X	
UUU	Calciners and Dryers in Mineral Industries		X	X	
VVV	Polymeric Coating of Supporting Substrates Facilities		X	X	
WWW	Municipal Solid Waste Landfills		X		
XXX	Municipal Solid Waste Landfills that Commenced Construction, Reconstruction, or Modification After July 17, 2014		X		
AAAA	Small Municipal Waste Combustion Units for Which Construction is Commenced After August 30, 1999 or for Which Modification or Reconstruction is Commenced After June 6, 2001		X		
CCCC	Commercial and Industrial Solid Waste Incineration Units for Which Construction Is		X		

Table 4 to Paragraph (d)(2)(i)—Delegation Status for New Source Performance Standards for Amador County APCD, Antelope Valley AQMD, Bay Area AQMD, and Butte County AQMD

	Subpart	Air pollution control agency			
		Amador County APCD	Antelope Valley AQMD	Bay Area AQMD	Butte County AQMD
	Commenced After November 30, 1999 or for Which Modification or Reconstruction Is Commenced on or After June 1, 2001				
DDDD	Emissions Guidelines and Compliance Times for Commercial and Industrial Solid Waste Incineration Units		X		
EEEE	Other Solid Waste Incineration Units for Which Construction is Commenced After December 9, 2004, or for Which Modification or Reconstruction is Commenced on or After June 16, 2006		X		
GGGG	(Reserved)				
HHHH	(Reserved)				
IIII	Stationary Compression Ignition Internal Combustion Engines		X		
JJJJ	Stationary Spark Ignition Internal Combustion Engines		X		
KKKK	Stationary Combustion Turbines		X		
LLLL	New Sewage Sludge Incineration Units		X		
MMMM	Emissions Guidelines and Compliance Times for Existing Sewage Sludge Incineration Units		X		
OOOO	Crude Oil and Natural Gas Production, Transmission, and Distribution		X		
OOOOa	Standards of Performance for Crude Oil and Natural Gas Facilities for Which Construction, Modification or Reconstruction Commenced After September 18, 2015		X		
TTTT	Standards of Performance for Greenhouse Gas Emissions for Electric Generating Units		X		
UUUUa	Emission Guidelines for Greenhouse Gas Emissions From Existing Electric Utility Generating Units		X		

(ii) [Reserved]

(iii) Delegations for Glenn County Air Pollution Control District, Great Basin Unified Air Pollution Control District, Imperial County Air Pollution Control District, and Kern County Air Pollution Control District are shown in the following table:

Delegation Status for New Source Performance Standards for Glenn County APCD, Great Basin Unified APCD, Imperial County APCD, and Kern County APCD

	Subpart	Air pollution control agency

Permit Issued: [month day, year]

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		Glenn County APCD	Great Basin Unified APCD	Imperial County APCD	Kern County APCD
A	General Provisions		X		X
D	Fossil-Fuel Fired Steam Generators Constructed After August 17, 1971		X		X
Da	Electric Utility Steam Generating Units Constructed After September 18, 1978		X		X
Db	Industrial-Commercial-Institutional Steam Generating Units		X		X
Dc	Small Industrial Steam Generating Units		X		X
E	Incinerators		X		X
Ea	Municipal Waste Combustors Constructed After December 20, 1989 and On or Before September 20, 1994		X		
Eb	Municipal Waste Combustors Constructed After September 20, 1994				
Ec	Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996				
F	Portland Cement Plants		X		X
G	Nitric Acid Plants		X		X
H	Sulfuric Acid Plants		X		
I	Hot Mix Asphalt Facilities		X		X
J	Petroleum Refineries		X		X
K	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978		X		X
Ka	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984		X		X
Kb	Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984		X		X
L	Secondary Lead Smelters		X		X
M	Secondary Brass and Bronze Production Plants		X		X
N	Primary Emissions from Basic Oxygen Process Furnaces for Which Construction is Commenced After June 11, 1973		X		X

Delegation Status for New Source Performance Standards for Glenn County APCD, Great Basin Unified APCD, Imperial County APCD, and Kern County APCD

	Subpart	Air pollution control agency			
		Glenn County APCD	Great Basin Unified APCD	Imperial County APCD	Kern County APCD
Na	Secondary Emissions from Basic Oxygen Process Steelmaking Facilities for Which Construction is Commenced After January 20, 1983		X		X
O	Sewage Treatment Plants		X		X
P	Primary Copper Smelters		X		X
Q	Primary Zinc Smelters		X		X
R	Primary Lead Smelters		X		X
S	Primary Aluminum Reduction Plants		X		X
T	Phosphate Fertilizer Industry: Wet Process Phosphoric Acid Plants		X		X
U	Phosphate Fertilizer Industry: Superphosphoric Acid Plants		X		X
V	Phosphate Fertilizer Industry: Diammonium Phosphate Plants		X		X
W	Phosphate Fertilizer Industry: Triple Superphosphate Plants		X		X
X	Phosphate Fertilizer Industry: Granular Triple Superphosphate Storage Facilities		X		X
Y	Coal Preparation Plants		X		X
Z	Ferroalloy Production Facilities		X		X
AA	Steel Plants: Electric Arc Furnaces Constructed After October 21, 1974 and On or Before August 17, 1983		X		X
AAa	Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 7, 1983		X		X
BB	Kraft pulp Mills		X		X
CC	Glass Manufacturing Plants		X		X
DD	Grain Elevators		X		X
EE	Surface Coating of Metal Furniture		X		X
FF	(Reserved)				
GG	Stationary Gas Turbines		X		X

Delegation Status for New Source Performance Standards for Glenn County APCD, Great Basin Unified APCD, Imperial County APCD, and Kern County APCD

	Subpart	Air pollution control agency			
		Glenn County APCD	Great Basin Unified APCD	Imperial County APCD	Kern County APCD
HH	Lime Manufacturing Plants		X		X
KK	Lead-Acid Battery Manufacturing Plants		X		X
LL	Metallic Mineral Processing Plants		X		X
MM	Automobile and Light Duty Trucks Surface Coating Operations		X		X
NN	Phosphate Rock Plants		X		X
PP	Ammonium Sulfate Manufacture		X		X
QQ	Graphic Arts Industry: Publication Rotogravure Printing		X		X
RR	Pressure Sensitive Tape and Label Surface Coating Operations		X		X
SS	Industrial Surface Coating: Large Appliances		X		X
TT	Metal Coil Surface Coating		X		X
UU	Asphalt Processing and Asphalt Roofing Manufacture		X		X
VV	Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry		X		X
WW	Beverage Can Surface Coating Industry		X		X
XX	Bulk Gasoline Terminals				
AAA	New Residential Wool Heaters		X		X
BBB	Rubber Tire Manufacturing Industry		X		X
CCC	(Reserved)				
DDD	Volatile Organic Compounds (VOC) Emissions from the Polymer Manufacturing Industry		X		X
EEE	(Reserved)				
FFF	Flexible Vinyl and Urethane Coating and Printing		X		X
GGG	Equipment Leaks of VOC in Petroleum Refineries		X		X

Delegation Status for New Source Performance Standards for Glenn County APCD, Great Basin Unified APCD, Imperial County APCD, and Kern County APCD

	Subpart	Air pollution control agency			
		Glenn County APCD	Great Basin Unified APCD	Imperial County APCD	Kern County APCD
HHH	Synthetic Fiber Production Facilities		X		X
III	Volatile Organic Compound (VOC) Emissions From the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes		X		X
JJJ	Petroleum Dry Cleaners		X		X
KKK	Equipment Leaks of VOC From Onshore Natural Gas Processing Plants		X		X
LLL	Onshore Natural Gas Processing: SO ₂ Emissions				X
MMM	(Reserved)				
NNN	Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations		X		X
OOO	Nonmetallic Mineral Processing Plants		X		X
PPP	Wool Fiberglass Insulation Manufacturing Plants		X		X
QQQ	VOC Emissions From Petroleum Refinery Wastewater Systems		X		X
RRR	Volatile Organic Compound Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes				X
SSS	Magnetic Tape Coating Facilities		X		X
TTT	Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machines		X	X	
UUU	Calciners and Dryers in Mineral Industries		X		X
VVV	Polymeric Coating of Supporting Substrates Facilities		X		X
WWW	Municipal Solid Waste Landfills				X

(iv) Delegations for Lake County Air Quality Management District, Lassen County Air Pollution Control District, Mariposa County Air Pollution Control District, and Mendocino County Air Pollution Control District are shown in the following table:

Delegation Status for New Source Performance Standards for Lake County Air Quality Management District, Lassen County Air Pollution Control District, Mariposa County Air Pollution Control District, and Mendocino County Air Pollution Control District

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	Subpart	Air pollution control agency			
		Lake County AQMD	Lassen County APCD	Mariposa County AQMD	Mendocino County AQMD
A	General Provisions	X			X
D	Fossil-Fuel Fired Steam Generators Constructed After August 17, 1971	X			X
Da	Electric Utility Steam Generating Units Constructed After September 18, 1978	X			X
Db	Industrial-Commercial-Institutional Steam Generating Units	X			
Dc	Small Industrial Steam Generating Units	X			X
E	Incinerators	X			X
Ea	Municipal Waste Combustors Constructed After December 20, 1989 and On or Before September 20, 1994	X			X
Eb	Municipal Waste Combustors Constructed After September 20, 1994				
Ec	Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996				
F	Portland Cement Plants	X			X
G	Nitric Acid Plants	X			X
H	Sulfuric Acid Plants	X			X
I	Hot Mix Asphalt Facilities	X			X
J	Petroleum Refineries	X			X
K	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978	X			X
Ka	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984	X			X
Kb	Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984	X			X
L	Secondary Lead Smelters	X			X
M	Secondary Brass and Bronze Production Plants	X			X
N	Primary Emissions from Basic Oxygen Process Furnaces for Which Construction is Commenced After June 11, 1973	X			X

Delegation Status for New Source Performance Standards for Lake County Air Quality Management District, Lassen County Air Pollution Control District, Mariposa County Air Pollution Control District, and Mendocino County Air Pollution Control District

	Subpart	Air pollution control agency			
		Lake County AQMD	Lassen County APCD	Mariposa County AQMD	Mendocino County AQMD
Na	Secondary Emissions from Basic Oxygen Process Steelmaking Facilities for Which Construction is Commenced After January 20, 1983	X			X
O	Sewage Treatment Plants	X			X
P	Primary Copper Smelters	X			X
Q	Primary Zinc Smelters	X			X
R	Primary Lead Smelters	X			X
S	Primary Aluminum Reduction Plants	X			X
T	Phosphate Fertilizer Industry: Wet Process Phosphoric Acid Plants	X			X
U	Phosphate Fertilizer Industry: Superphosphoric Acid Plants	X			X
V	Phosphate Fertilizer Industry: Diammonium Phosphate Plants	X			X
W	Phosphate Fertilizer Industry: Triple Superphosphate Plants	X			X
X	Phosphate Fertilizer Industry: Granular Triple Superphosphate Storage Facilities	X			X
Y	Coal Preparation Plants	X			X
Z	Ferroalloy Production Facilities	X			X
AA	Steel Plants: Electric Arc Furnaces Constructed After October 21, 1974 and On or Before August 17, 1983	X			X
AAa	Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 7, 1983	X			X
BB	Kraft Pulp Mills	X			X
CC	Glass Manufacturing Plants	X			X
DD	Grain Elevators	X			X
EE	Surface Coating of Metal Furniture	X			X
FF	(Reserved)				
GG	Stationary Gas Turbines	X			X

Delegation Status for New Source Performance Standards for Lake County Air Quality Management District, Lassen County Air Pollution Control District, Mariposa County Air Pollution Control District, and Mendocino County Air Pollution Control District

	Subpart	Air pollution control agency			
		Lake County AQMD	Lassen County APCD	Mariposa County AQMD	Mendocino County AQMD
HH	Lime Manufacturing Plants	X			X
KK	Lead-Acid Battery Manufacturing Plants	X			X
LL	Metallic Mineral Processing Plants	X			X
MM	Automobile and Light Duty Trucks Surface Coating Operations	X			X
NN	Phosphate Rock Plants	X			X
PP	Ammonium Sulfate Manufacture	X			X
QQ	Graphic Arts Industry: Publication Rotogravure Printing	X			X
RR	Pressure Sensitive Tape and Label Surface Coating Operations	X			X
SS	Industrial Surface Coating: Large Appliances	X			X
TT	Metal Coil Surface Coating	X			X
UU	Asphalt Processing and Asphalt Roofing Manufacture	X			X
VV	Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry	X			X
WW	Beverage Can Surface Coating Industry	X			X
XX	Bulk Gasoline Terminals				
AAA	New Residential Wool Heaters	X			X
BBB	Rubber Tire Manufacturing Industry	X			X
CCC	(Reserved)				
DDD	Volatile Organic Compounds (VOC) Emissions from the Polymer Manufacturing Industry	X			X
EEE	(Reserved)				
FFF	Flexible Vinyl and Urethane Coating and Printing	X			X
GGG	Equipment Leaks of VOC in Petroleum Refineries	X			X
HHH	Synthetic Fiber Production Facilities	X			X
III	Volatile Organic Compound (VOC) Emissions From the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit	X			X

Delegation Status for New Source Performance Standards for Lake County Air Quality Management District, Lassen County Air Pollution Control District, Mariposa County Air Pollution Control District, and Mendocino County Air Pollution Control District

	Subpart	Air pollution control agency			
		Lake County AQMD	Lassen County APCD	Mariposa County AQMD	Mendocino County AQMD
	Processes				
JJJ	Petroleum Dry Cleaners	X			X
KKK	Equipment Leaks of VOC From Onshore Natural Gas Processing Plants	X			X
LLL	Onshore Natural Gas Processing: SO ₂ Emissions	X			X
MMM	(Reserved)				
NNN	Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations	X			X
OOO	Nonmetallic Mineral Processing Plants	X			X
PPP	Wool Fiberglass Insulation Manufacturing Plants	X			X
QQQ	VOC Emissions From Petroleum Refinery Wastewater Systems	X			X
RRR	Volatile Organic Compound Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes	X			
SSS	Magnetic Tape Coating Facilities	X			X
TTT	Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machines				
UUU	Calciners and Dryers in Mineral Industries	X			X
VVV	Polymeric Coating of Supporting Substrates Facilities	X			X
WWW	Municipal Solid Waste Landfills	X			

(v) Delegations for Modoc Air Pollution Control District, Mojave Desert Air Quality Management District, Monterey Bay Unified Air Pollution Control District and North Coast Unified Air Quality Management District are shown in the following table:

Table 7 to Paragraph (d)(2)(v)—Delegation Status for New Source Performance Standards for Modoc County APCD, Mojave Desert AQMD, Monterey Bay Unified APCD, and North Coast Unified AQMD

	Subpart	Air pollution control agency			
		Modoc County APCD	Mojave Desert AQMD	Monterey Bay Unified APCD	North Coast Unified AQMD

Table 7 to Paragraph (d)(2)(v)—Delegation Status for New Source Performance Standards for Modoc County APCD, Mojave Desert AQMD, Monterey Bay Unified APCD, and North Coast Unified AQMD

	Subpart	Air pollution control agency			
		Modoc County APCD	Mojave Desert AQMD	Monterey Bay Unified APCD	North Coast Unified AQMD
A	General Provisions	X	X	X	X
D	Fossil-Fuel Fired Steam Generators Constructed After August 17, 1971	X	X	X	X
Da	Electric Utility Steam Generating Units Constructed After September 18, 1978	X	X	X	X
Db	Industrial-Commercial-Institutional Steam Generating Units	X	X	X	X
Dc	Small Industrial-Commercial-Institutional Steam Generating Units		X	X	
E	Incinerators	X	X	X	X
Ea	Municipal Waste Combustors Constructed After December 20, 1989 and On or Before September 20, 1994		X		
Eb	Large Municipal Waste Combustors Constructed After September 20, 1994		X		
Ec	Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996		X		
F	Portland Cement Plants	X	X	X	X
G	Nitric Acid Plants	X	X	X	X
Ga	Nitric Acid Plants For Which Construction, Reconstruction or Modification Commenced After October 14, 2011				
H	Sulfuric Acid Plant	X	X	X	X
I	Hot Mix Asphalt Facilities	X	X	X	X
J	Petroleum Refineries	X	X	X	X
Ja	Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007		X		
K	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978	X	X	X	X
Ka	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984	X	X	X	X
Kb	Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984	X	X	X	X
L	Secondary Lead Smelters	X	X	X	X

Table 7 to Paragraph (d)(2)(v)—Delegation Status for New Source Performance Standards for Modoc County APCD, Mojave Desert AQMD, Monterey Bay Unified APCD, and North Coast Unified AQMD

	Subpart	Air pollution control agency			
		Modoc County APCD	Mojave Desert AQMD	Monterey Bay Unified APCD	North Coast Unified AQMD
M	Secondary Brass and Bronze Production Plants	X	X	X	X
N	Primary Emissions from Basic Oxygen Process Furnaces for Which Construction is Commenced After June 11, 1973	X	X	X	X
Na	Secondary Emissions from Basic Oxygen Process Steelmaking Facilities for Which Construction is Commenced After January 20, 1983	X	X	X	X
O	Sewage Treatment Plants	X	X	X	X
P	Primary Copper Smelters	X	X	X	X
Q	Primary Zinc Smelters	X	X	X	X
R	Primary Lead Smelters	X	X	X	X
S	Primary Aluminum Reduction Plants	X	X	X	X
T	Phosphate Fertilizer Industry: Wet Process Phosphoric Acid Plants	X	X	X	X
U	Phosphate Fertilizer Industry: Superphosphoric Acid Plants	X	X	X	X
V	Phosphate Fertilizer Industry: Diammonium Phosphate Plants	X	X	X	X
W	Phosphate Fertilizer Industry: Triple Superphosphate Plants	X	X	X	X
X	Phosphate Fertilizer Industry: Granular Triple Superphosphate Storage Facilities	X	X	X	X
Y	Coal Preparation and Processing Plants	X	X	X	X
Z	Ferroalloy Production Facilities	X	X	X	X
AA	Steel Plants: Electric Arc Furnaces Constructed After October 21, 1974 and On or Before August 17, 1983	X	X	X	X
AAa	Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 7, 1983	X	X	X	X
BB	Kraft Pulp Mills	X	X	X	X
CC	Glass Manufacturing Plants	X	X	X	X
DD	Grain Elevators	X	X	X	X
EE	Surface Coating of Metal Furniture	X	X	X	X
FF	(Reserved)				

Table 7 to Paragraph (d)(2)(v)—Delegation Status for New Source Performance Standards for Modoc County APCD, Mojave Desert AQMD, Monterey Bay Unified APCD, and North Coast Unified AQMD

	Subpart	Air pollution control agency			
		Modoc County APCD	Mojave Desert AQMD	Monterey Bay Unified APCD	North Coast Unified AQMD
GG	Stationary Gas Turbines	X	X	X	X
HH	Lime Manufacturing Plants	X	X	X	X
KK	Lead-Acid Battery Manufacturing Plants	X	X	X	X
LL	Metallic Mineral Processing Plants	X	X	X	X
MM	Automobile and Light Duty Trucks Surface Coating Operations	X	X	X	X
NN	Phosphate Rock Plants	X	X	X	X
PP	Ammonium Sulfate Manufacture	X	X	X	X
QQ	Graphic Arts Industry: Publication Rotogravure Printing	X	X	X	X
RR	Pressure Sensitive Tape and Label Surface Coating Operations	X	X	X	X
SS	Industrial Surface Coating: Large Appliances	X	X	X	X
TT	Metal Coil Surface Coating	X	X	X	X
UU	Asphalt Processing and Asphalt Roofing Manufacture	X	X	X	X
VV	Equipment Leaks of VOC in the Synthetic Organic Industry Chemicals Manufacturing	X	X	X	X
VVa	Equipment Leaks of VOC in the Synthetic Organic Industry for Which Construction, Reconstruction, or Chemicals Manufacturing Modification Commenced After November 7, 2006		X		
WW	Beverage Can Surface Coating Industry	X	X	X	X
XX	Bulk Gasoline Terminals				
AAA	New Residential Wood Heaters	X	X	X	X
BBB	Rubber Tire Manufacturing Industry	X	X	X	X
CCC	(Reserved)				
DDD	Volatile Organic Compounds (VOC) Emissions from the Polymer Manufacturing Industry	X	X	X	
EEE	(Reserved)				
FFF	Flexible Vinyl and Urethane Coating and Printing	X	X	X	X
GGG	Equipment Leaks of VOC in Petroleum Refineries	X	X	X	X

Table 7 to Paragraph (d)(2)(v)—Delegation Status for New Source Performance Standards for Modoc County APCD, Mojave Desert AQMD, Monterey Bay Unified APCD, and North Coast Unified AQMD

	Subpart	Air pollution control agency			
		Modoc County APCD	Mojave Desert AQMD	Monterey Bay Unified APCD	North Coast Unified AQMD
GGGa	Equipment Leaks of VOC in Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006		X		
HHH	Synthetic Fiber Production Facilities	X	X	X	X
III	Volatile Organic Compound (VOC) Emissions From the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes		X		
JJJ	Petroleum Dry Cleaners	X	X	X	X
KKK	Equipment Leaks of VOC From Onshore Natural Gas Processing Plants	X	X	X	X
LLL	Onshore Natural Gas Processing: SO ₂ Emissions	X	X	X	X
MMM	(Reserved)				
NNN	Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations	X	X	X	
OOO	Nonmetallic Mineral Processing Plants	X	X	X	X
PPP	Wool Fiberglass Insulation Manufacturing Plants	X	X	X	X
QQQ	VOC Emissions From Petroleum Refinery Wastewater Systems	X	X	X	X
RRR	Volatile Organic Compound Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes		X		
SSS	Magnetic Tape Coating Facilities	X	X	X	X
TTT	Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machines	X	X	X	X
UUU	Calciners and Dryers in Mineral Industries		X	X	
VVV	Polymeric Coating of Supporting Substrates Facilities		X	X	X
WWW	Municipal Solid Waste Landfills		X	X	
AAAA	Small Municipal Waste Combustion Units for Which Construction is Commenced After August 30, 1999 or for Which Modification or Reconstruction is Commenced After June 6, 2001		X		
CCCC	Commercial and Industrial Solid Waste Incineration Units for Which Construction Is Commenced After November 30, 1999 or for Which Modification or Reconstruction Is Commenced on or After June 1, 2001		X		
EEEE	Other Solid Waste Incineration Units for Which Construction is Commenced After		X		

Table 7 to Paragraph (d)(2)(v)—Delegation Status for New Source Performance Standards for Modoc County APCD, Mojave Desert AQMD, Monterey Bay Unified APCD, and North Coast Unified AQMD

	Subpart	Air pollution control agency			
		Modoc County APCD	Mojave Desert AQMD	Monterey Bay Unified APCD	North Coast Unified AQMD
	December 9, 2004, or for Which Modification or Reconstruction is Commenced on or After June 16, 2006				
GGGG	(Reserved)				
HHHH	(Reserved)				
IIII	Stationary Compression Ignition Internal Combustion Engines		X	X	
JJJJ	Stationary Spark Ignition Internal Combustion Engines		X	X	
KKKK	Stationary Combustion Turbines		X	X	
LLLL	New Sewage Sludge Incineration Units				
OOOO	Crude Oil and Natural Gas Production, Transmission, and Distribution				

(vi) Delegations for Northern Sierra Air Quality Management District, Northern Sonoma County Air Pollution Control District, Placer County Air Pollution Control District, and Sacramento Metropolitan Air Quality Management District are shown in the following table:

Delegation Status for New Source Performance Standards for Northern Sierra Air Quality Management District, Northern Sonoma County Air Pollution Control District, Placer County Air Pollution Control District, and Sacramento Metropolitan Air Quality Management District

	Subpart	Air pollution control agency			
		Northern Sierra AQMD	Northern Sonoma County APCD	Placer County APCD	Sacramento Metropolitan AQMD
A	General Provisions		X		X
D	Fossil-Fuel Fired Steam Generators Constructed After August 17, 1971		X		X
Da	Electric Utility Steam Generating Units Constructed After September 18, 1978		X		X
Db	Industrial-Commercial-Institutional Steam Generating Units				X
Dc	Small Industrial Steam Generating Units				X
E	Incinerators		X		X
Ea	Municipal Waste Combustors Constructed After December 20,				X

Delegation Status for New Source Performance Standards for Northern Sierra Air Quality Management District, Northern Sonoma County Air Pollution Control District, Placer County Air Pollution Control District, and Sacramento Metropolitan Air Quality Management District

	Subpart	Air pollution control agency			
		Northern Sierra AQMD	Northern Sonoma County APCD	Placer County APCD	Sacramento Metropolitan AQMD
	1989 and On or Before September 20, 1994				
Eb	Municipal Waste Combustors Constructed After September 20, 1994				X
Ec	Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996				X
F	Portland Cement Plants		X		X
G	Nitric Acid Plants		X		X
H	Sulfuric Acid Plants		X		X
I	Hot Mix Asphalt Facilities		X		X
J	Petroleum Refineries		X		X
K	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978		X		X
Ka	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984		X		X
Kb	Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984				X
L	Secondary Lead Smelters		X		X
M	Secondary Brass and Bronze Production Plants		X		X
N	Primary Emissions from Basic Oxygen Process Furnaces for Which Construction is Commenced After June 11, 1973		X		X
Na	Secondary Emissions from Basic Oxygen Process Steelmaking Facilities for Which Construction is Commenced After January 20, 1983				X
O	Sewage Treatment Plants		X		X
P	Primary Copper Smelters		X		X
Q	Primary Zinc Smelters		X		X

Delegation Status for New Source Performance Standards for Northern Sierra Air Quality Management District, Northern Sonoma County Air Pollution Control District, Placer County Air Pollution Control District, and Sacramento Metropolitan Air Quality Management District

	Subpart	Air pollution control agency			
		Northern Sierra AQMD	Northern Sonoma County APCD	Placer County APCD	Sacramento Metropolitan AQMD
R	Primary Lead Smelters		X		X
S	Primary Aluminum Reduction Plants		X		X
T	Phosphate Fertilizer Industry: Wet Process Phosphoric Acid Plants		X		X
U	Phosphate Fertilizer Industry: Superphosphoric Acid Plants		X		X
V	Phosphate Fertilizer Industry: Diammonium Phosphate Plants		X		X
W	Phosphate Fertilizer Industry: Triple Superphosphate Plants		X		X
X	Phosphate Fertilizer Industry: Granular Triple Superphosphate Storage Facilities		X		X
Y	Coal Preparation Plants		X		X
Z	Ferroalloy Production Facilities		X		X
AA	Steel Plants: Electric Arc Furnaces Constructed After October 21, 1974 and On or Before August 17, 1983		X		X
AAa	Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 7, 1983				X
BB	Kraft pulp Mills		X		X
CC	Glass Manufacturing Plants		X		X
DD	Grain Elevators		X		X
EE	Surface Coating of Metal Furniture				X
FF	(Reserved)				
GG	Stationary Gas Turbines		X		X
HH	Lime Manufacturing Plants		X		X
KK	Lead-Acid Battery Manufacturing Plants				X
LL	Metallic Mineral Processing Plants				X
MM	Automobile and Light Duty Trucks Surface Coating Operations		X		X
NN	Phosphate Rock Plants				X

Delegation Status for New Source Performance Standards for Northern Sierra Air Quality Management District, Northern Sonoma County Air Pollution Control District, Placer County Air Pollution Control District, and Sacramento Metropolitan Air Quality Management District

	Subpart	Air pollution control agency			
		Northern Sierra AQMD	Northern Sonoma County APCD	Placer County APCD	Sacramento Metropolitan AQMD
PP	Ammonium Sulfate Manufacture		X		X
QQ	Graphic Arts Industry: Publication Rotogravure Printing				X
RR	Pressure Sensitive Tape and Label Surface Coating Operations				X
SS	Industrial Surface Coating: Large Appliances				X
TT	Metal Coil Surface Coating				X
UU	Asphalt Processing and Asphalt Roofing Manufacture				X
VV	Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry				X
WW	Beverage Can Surface Coating Industry				X
XX	Bulk Gasoline Terminals				
AAA	New Residential Wool Heaters				X
BBB	Rubber Tire Manufacturing Industry				X
CCC	(Reserved)				
DDD	Volatile Organic Compounds (VOC) Emissions from the Polymer Manufacturing Industry				X
EEE	(Reserved)				
FFF	Flexible Vinyl and Urethane Coating and Printing				X
GGG	Equipment Leaks of VOC in Petroleum Refineries				X
HHH	Synthetic Fiber Production Facilities				X
III	Volatile Organic Compound (VOC) Emissions From the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes				X
JJJ	Petroleum Dry Cleaners				X
KKK	Equipment Leaks of VOC From Onshore Natural Gas Processing Plants				X
LLL	Onshore Natural Gas Processing: SO ₂ Emissions				X

Delegation Status for New Source Performance Standards for Northern Sierra Air Quality Management District, Northern Sonoma County Air Pollution Control District, Placer County Air Pollution Control District, and Sacramento Metropolitan Air Quality Management District

	Subpart	Air pollution control agency			
		Northern Sierra AQMD	Northern Sonoma County APCD	Placer County APCD	Sacramento Metropolitan AQMD
MMM	(Reserved)				
NNN	Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations				X
OOO	Nonmetallic Mineral Processing Plants				X
PPP	Wool Fiberglass Insulation Manufacturing Plants				X
QQQ	VOC Emissions From Petroleum Refinery Wastewater Systems				X
RRR	Volatile Organic Compound Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes				X
SSS	Magnetic Tape Coating Facilities				X
TTT	Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machines				X
UUU	Calciners and Dryers in Mineral Industries				X
VVV	Polymeric Coating of Supporting Substrates Facilities				X
WWW	Municipal Solid Waste Landfills				X

(vii) Delegations for San Diego County Air Pollution Control District, San Joaquin Valley Unified Air Pollution Control District, San Luis Obispo County Air Pollution Control District, and Santa Barbara County Air Pollution Control District are shown in the following table:

Table 9 to Paragraph (d)(2)(vii)—Delegation Status for New Source Performance Standards for San Diego County APCD, San Joaquin Valley Unified APCD, San Luis Obispo County APCD, and Santa Barbara County APCD

	Subpart	Air pollution control agency			
		San Diego County APCD	San Joaquin Valley Unified APCD	San Luis Obispo County APCD	Santa Barbara County APCD
A	General Provisions	X	X	X	X
D	Fossil-Fuel Fired Steam Generators Constructed After August 17, 1971	X	X	X	X

Table 9 to Paragraph (d)(2)(vii)—Delegation Status for New Source Performance Standards for San Diego County APCD, San Joaquin Valley Unified APCD, San Luis Obispo County APCD, and Santa Barbara County APCD

	Subpart	Air pollution control agency			
		San Diego County APCD	San Joaquin Valley Unified APCD	San Luis Obispo County APCD	Santa Barbara County APCD
Da	Electric Utility Steam Generating Units Constructed After September 18, 1978	X	X	X	X
Db	Industrial-Commercial-Institutional Steam Generating Units	X	X	X	X
Dc	Small Industrial-Commercial-Institutional Steam Generating Units	X	X	X	X
E	Incinerators	X	X	X	X
Ea	Municipal Waste Combustors Constructed After December 20, 1989 and On or Before September 20, 1994	X	X	X	
Eb	Large Municipal Waste Combustors Constructed After September 20, 1994	X	X		X
Ec	Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996	X			X
F	Portland Cement Plants	X	X	X	
G	Nitric Acid Plants	X	X	X	
Ga	Nitric Acid Plants For Which Construction, Reconstruction or Modification Commenced After October 14, 2011				
H	Sulfuric Acid Plant	X	X	X	
I	Hot Mix Asphalt Facilities	X	X	X	X
J	Petroleum Refineries	X	X	X	X
Ja	Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007				X
K	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978	X	X	X	X
Ka	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984	X	X	X	X
Kb	Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984	X	X	X	X
L	Secondary Lead Smelters	X	X	X	X
M	Secondary Brass and Bronze Production Plants	X	X	X	X

Table 9 to Paragraph (d)(2)(vii)—Delegation Status for New Source Performance Standards for San Diego County APCD, San Joaquin Valley Unified APCD, San Luis Obispo County APCD, and Santa Barbara County APCD

	Subpart	Air pollution control agency			
		San Diego County APCD	San Joaquin Valley Unified APCD	San Luis Obispo County APCD	Santa Barbara County APCD
N	Primary Emissions from Basic Oxygen Process Furnaces for Which Construction is Commenced After June 11, 1973	X	X	X	
Na	Secondary Emissions from Basic Oxygen Process Steelmaking Facilities for Which Construction is Commenced After January 20, 1983	X	X	X	
O	Sewage Treatment Plants	X	X	X	X
P	Primary Copper Smelters	X	X	X	
Q	Primary Zinc Smelters	X	X	X	
R	Primary Lead Smelters	X	X	X	
S	Primary Aluminum Reduction Plants	X	X	X	
T	Phosphate Fertilizer Industry: Wet Process Phosphoric Acid Plants	X	X	X	
U	Phosphate Fertilizer Industry: Superphosphoric Acid Plants	X	X	X	
V	Phosphate Fertilizer Industry: Diammonium Phosphate Plants	X	X	X	
W	Phosphate Fertilizer Industry: Triple Superphosphate Plants	X	X	X	
X	Phosphate Fertilizer Industry: Granular Triple Superphosphate Storage Facilities	X	X	X	
Y	Coal Preparation and Processing Plants	X	X	X	
Z	Ferroalloy Production Facilities	X	X	X	
AA	Steel Plants: Electric Arc Furnaces Constructed After October 21, 1974 and On or Before August 17, 1983	X	X	X	
AAa	Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 7, 1983	X	X	X	
BB	Kraft Pulp Mills	X	X	X	
CC	Glass Manufacturing Plants	X	X	X	X
DD	Grain Elevators	X	X	X	X
EE	Surface Coating of Metal Furniture	X	X	X	
FF	(Reserved)				

Table 9 to Paragraph (d)(2)(vii)—Delegation Status for New Source Performance Standards for San Diego County APCD, San Joaquin Valley Unified APCD, San Luis Obispo County APCD, and Santa Barbara County APCD

	Subpart	Air pollution control agency			
		San Diego County APCD	San Joaquin Valley Unified APCD	San Luis Obispo County APCD	Santa Barbara County APCD
GG	Stationary Gas Turbines	X	X	X	X
HH	Lime Manufacturing Plants	X	X	X	
KK	Lead-Acid Battery Manufacturing Plants	X	X	X	
LL	Metallic Mineral Processing Plants	X	X	X	
MM	Automobile and Light Duty Trucks Surface Coating Operations	X	X	X	
NN	Phosphate Rock Plants	X	X	X	
PP	Ammonium Sulfate Manufacture	X	X	X	
QQ	Graphic Arts Industry: Publication Rotogravure Printing	X	X	X	
RR	Pressure Sensitive Tape and Label Surface Coating Operations	X	X	X	
SS	Industrial Surface Coating: Large Appliances	X	X	X	
TT	Metal Coil Surface Coating	X	X	X	
UU	Asphalt Processing and Asphalt Roofing Manufacture	X	X	X	
VV	Equipment Leaks of VOC in the Synthetic Organic Industry Chemicals Manufacturing	X	X	X	
VVa	Equipment Leaks of VOC in the Synthetic Organic Industry for Which Construction, Reconstruction, or Chemicals Manufacturing Modification Commenced After November 7, 2006				X
WW	Beverage Can Surface Coating Industry	X	X	X	
XX	Bulk Gasoline Terminals				
AAA	New Residential Wood Heaters	X	X	X	X
BBB	Rubber Tire Manufacturing Industry	X	X	X	
CCC	(Reserved)				
DDD	Volatile Organic Compounds (VOC) Emissions from the Polymer Manufacturing Industry	X	X		
EEE	(Reserved)				
FFF	Flexible Vinyl and Urethane Coating and Printing	X	X	X	

Table 9 to Paragraph (d)(2)(vii)—Delegation Status for New Source Performance Standards for San Diego County APCD, San Joaquin Valley Unified APCD, San Luis Obispo County APCD, and Santa Barbara County APCD

	Subpart	Air pollution control agency			
		San Diego County APCD	San Joaquin Valley Unified APCD	San Luis Obispo County APCD	Santa Barbara County APCD
GGG	Equipment Leaks of VOC in Petroleum Refineries	X	X	X	
GGGa	Equipment Leaks of VOC in Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006				X
HHH	Synthetic Fiber Production Facilities	X	X	X	
III	Volatile Organic Compound (VOC) Emissions From the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes	X	X		
JJJ	Petroleum Dry Cleaners	X	X	X	
KKK	Equipment Leaks of VOC From Onshore Natural Gas Processing Plants	X	X	X	
LLL	Onshore Natural Gas Processing: SO ₂ Emissions	X	X	X	
MMM	(Reserved)				
NNN	Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations	X	X		
OOO	Nonmetallic Mineral Processing Plants	X	X	X	X
PPP	Wool Fiberglass Insulation Manufacturing Plants	X	X	X	
QQQ	VOC Emissions From Petroleum Refinery Wastewater Systems	X	X	X	
RRR	Volatile Organic Compound Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes	X	X	X	
SSS	Magnetic Tape Coating Facilities	X	X	X	
TTT	Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machines	X	X	X	
UUU	Calciners and Dryers in Mineral Industries	X	X	X	X
VVV	Polymeric Coating of Supporting Substrates Facilities	X	X	X	X
WWW	Municipal Solid Waste Landfills	X	X	X	X
AAAA	Small Municipal Waste Combustion Units for Which Construction is Commenced After August 30, 1999 or for Which Modification or Reconstruction is Commenced After June 6, 2001	X			X
CCCC	Commercial and Industrial Solid Waste Incineration Units for Which Construction Is	X			X

Table 9 to Paragraph (d)(2)(vii)—Delegation Status for New Source Performance Standards for San Diego County APCD, San Joaquin Valley Unified APCD, San Luis Obispo County APCD, and Santa Barbara County APCD

	Subpart	Air pollution control agency			
		San Diego County APCD	San Joaquin Valley Unified APCD	San Luis Obispo County APCD	Santa Barbara County APCD
	Commenced After November 30, 1999 or for Which Modification or Reconstruction Is Commenced on or After June 1, 2001				
EEEE	Other Solid Waste Incineration Units for Which Construction is Commenced After December 9, 2004, or for Which Modification or Reconstruction is Commenced on or After June 16, 2006	X			X
GGGG	(Reserved)				
HHHH	(Reserved)				
IIII	Stationary Compression Ignition Internal Combustion Engines	X			X
JJJJ	Stationary Spark Ignition Internal Combustion Engines	X			X
KKKK	Stationary Combustion Turbines	X			X
LLLL	New Sewage Sludge Incineration Units				
OOOO	Crude Oil and Natural Gas Production, Transmission, and Distribution				
QQQQ	Standards of Performance for New Residential Hydronic Heaters and Forced-Air Furnaces	X			
TTTT	Standards of Performance for Greenhouse Gas Emissions for Electric Generating Units	X			

(viii) Delegations for Shasta County Air Quality Management District, Siskiyou County Air Pollution Control District, South Coast Air Quality Management District, and Tehama County Air Pollution Control District are shown in the following table:

Delegation Status for New Source Performance Standards for Shasta County AQMD, Siskiyou County APCD, South Coast AQMD, and Tehama County APCD

	Subpart	Air pollution control agency			
		Shasta County AQMD	Siskiyou County APCD	South Coast AQMD	Tehama County APCD
A	General Provisions	X	X	X	
D	Fossil-Fuel Fired Steam Generators Constructed After August 17, 1971	X		X	
Da	Electric Utility Steam Generating Units Constructed After September 18, 1978			X	

Delegation Status for New Source Performance Standards for Shasta County AQMD, Siskiyou County APCD, South Coast AQMD, and Tehama County APCD

	Subpart	Air pollution control agency			
		Shasta County AQMD	Siskiyou County APCD	South Coast AQMD	Tehama County APCD
Db	Industrial-Commercial-Institutional Steam Generating Units			X	
Dc	Small Industrial-Commercial-Institutional Steam Generating Units			X	
E	Incinerators	X		X	
Ea	Municipal Waste Combustors Constructed After December 20, 1989 and On or Before September 20, 1994			X	
Eb	Large Municipal Waste Combustors Constructed After September 20, 1994			X	
Ec	Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996			X	
F	Portland Cement Plants	X		X	
G	Nitric Acid Plants	X		X	
Ga	Nitric Acid Plants For Which Construction, Reconstruction or Modification Commenced After October 14, 2011				
H	Sulfuric Acid Plant	X		X	
I	Hot Mix Asphalt Facilities	X		X	
J	Petroleum Refineries	X		X	
Ja	Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007			X	
K	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978	X		X	
Ka	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984			X	
Kb	Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984			X	
L	Secondary Lead Smelters	X		X	
M	Secondary Brass and Bronze Production Plants	X		X	
N	Primary Emissions from Basic Oxygen Process Furnaces for Which Construction is Commenced After June 11, 1973	X		X	
Na	Secondary Emissions from Basic Oxygen Process Steelmaking Facilities for			X	

Delegation Status for New Source Performance Standards for Shasta County AQMD, Siskiyou County APCD, South Coast AQMD, and Tehama County APCD

	Subpart	Air pollution control agency			
		Shasta County AQMD	Siskiyou County APCD	South Coast AQMD	Tehama County APCD
	Which Construction is Commenced After January 20, 1983				
O	Sewage Treatment Plants	X		X	
P	Primary Copper Smelters	X		X	
Q	Primary Zinc Smelters	X		X	
R	Primary Lead Smelters	X		X	
S	Primary Aluminum Reduction Plants	X		X	
T	Phosphate Fertilizer Industry: Wet Process Phosphoric Acid Plants	X		X	
U	Phosphate Fertilizer Industry: Superphosphoric Acid Plants	X		X	
V	Phosphate Fertilizer Industry: Diammonium Phosphate Plants	X		X	
W	Phosphate Fertilizer Industry: Triple Superphosphate Plants	X		X	
X	Phosphate Fertilizer Industry: Granular Triple Superphosphate Storage Facilities	X		X	
Y	Coal Preparation and Processing Plants	X		X	
Z	Ferroalloy Production Facilities	X		X	
AA	Steel Plants: Electric Arc Furnaces Constructed After October 21, 1974 and On or Before August 17, 1983	X		X	
AAa	Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 7, 1983			X	
BB	Kraft Pulp Mills	X		X	
CC	Glass Manufacturing Plants			X	
DD	Grain Elevators	X		X	
EE	Surface Coating of Metal Furniture			X	
FF	(Reserved)				
GG	Stationary Gas Turbines			X	
HH	Lime Manufacturing Plants	X		X	
KK	Lead-Acid Battery Manufacturing Plants			X	

Delegation Status for New Source Performance Standards for Shasta County AQMD, Siskiyou County APCD, South Coast AQMD, and Tehama County APCD

	Subpart	Air pollution control agency			
		Shasta County AQMD	Siskiyou County APCD	South Coast AQMD	Tehama County APCD
LL	Metallic Mineral Processing Plants			X	
MM	Automobile and Light Duty Trucks Surface Coating Operations			X	
NN	Phosphate Rock Plants			X	
PP	Ammonium Sulfate Manufacture			X	
QQ	Graphic Arts Industry: Publication Rotogravure Printing			X	
RR	Pressure Sensitive Tape and Label Surface Coating Operations			X	
SS	Industrial Surface Coating: Large Appliances			X	
TT	Metal Coil Surface Coating			X	
UU	Asphalt Processing and Asphalt Roofing Manufacture			X	
VV	Equipment Leaks of VOC in the Synthetic Organic Industry Chemicals Manufacturing			X	
VVa	Equipment Leaks of VOC in the Synthetic Organic Industry for Which Construction, Reconstruction, or Chemicals Manufacturing Modification Commenced After November 7, 2006			X	
WW	Beverage Can Surface Coating Industry			X	
XX	Bulk Gasoline Terminals				
AAA	New Residential Wood Heaters		X	X	
BBB	Rubber Tire Manufacturing Industry		X	X	
CCC	(Reserved)				
DDD	Volatile Organic Compounds (VOC) Emissions from the Polymer Manufacturing Industry			X	
EEE	(Reserved)				
FFF	Flexible Vinyl and Urethane Coating and Printing			X	
GGG	Equipment Leaks of VOC in Petroleum Refineries			X	
GGGa	Equipment Leaks of VOC in Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006			X	
HHH	Synthetic Fiber Production Facilities			X	

Delegation Status for New Source Performance Standards for Shasta County AQMD, Siskiyou County APCD, South Coast AQMD, and Tehama County APCD

	Subpart	Air pollution control agency			
		Shasta County AQMD	Siskiyou County APCD	South Coast AQMD	Tehama County APCD
III	Volatile Organic Compound (VOC) Emissions From the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes			X	
JJJ	Petroleum Dry Cleaners			X	
KKK	Equipment Leaks of VOC From Onshore Natural Gas Processing Plants			X	
LLL	Onshore Natural Gas Processing: SO ₂ Emissions			X	
MMM	(Reserved)				
NNN	Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations			X	
OOO	Nonmetallic Mineral Processing Plants			X	
PPP	Wool Fiberglass Insulation Manufacturing Plants			X	
QQQ	VOC Emissions From Petroleum Refinery Wastewater Systems		X	X	
RRR	Volatile Organic Compound Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes			X	
SSS	Magnetic Tape Coating Facilities		X	X	
TTT	Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machines		X	X	
UUU	Calciners and Dryers in Mineral Industries			X	
VVV	Polymeric Coating of Supporting Substrates Facilities			X	
WWW	Municipal Solid Waste Landfills			X	
AAAA	Small Municipal Waste Combustion Units for Which Construction is Commenced After August 30, 1999 or for Which Modification or Reconstruction is Commenced After June 6, 2001	X	X	X	
CCCC	Commercial and Industrial Solid Waste Incineration Units for Which Construction Is Commenced After November 30, 1999 or for Which Modification or Reconstruction Is Commenced on or After June 1, 2001			X	
EEEE	Other Solid Waste Incineration Units for Which Construction is Commenced After December 9, 2004, or for Which Modification or Reconstruction is Commenced on or After June 16, 2006			X	
GGGG	(Reserved)				

Delegation Status for New Source Performance Standards for Shasta County AQMD, Siskiyou County APCD, South Coast AQMD, and Tehama County APCD

	Subpart	Air pollution control agency			
		Shasta County AQMD	Siskiyou County APCD	South Coast AQMD	Tehama County APCD
HHHH	(Reserved)				
IIII	Stationary Compression Ignition Internal Combustion Engines			X	
JJJJ	Stationary Spark Ignition Internal Combustion Engines			X	
KKKK	Stationary Combustion Turbines			X	
LLLL	New Sewage Sludge Incineration Units				
OOOO	Crude Oil and Natural Gas Production, Transmission, and Distribution				

(ix) Delegations for Tuolumne County Air Pollution Control District, Ventura County Air Pollution Control District, and Yolo-Solano Air Quality Management District are shown in the following table:

Table 11 to Paragraph (d)(2)(ix)—Delegation Status for New Source Performance Standards for Tuolumne County APCD, Ventura County APCD, and Yolo-Solano AQMD

	Subpart	Air pollution control agency		
		Tuolumne County APCD	Ventura County APCD	Yolo-Solano AQMD
A	General Provisions		X	X
D	Fossil-Fuel Fired Steam Generators Constructed After August 17, 1971		X	X
Da	Electric Utility Steam Generating Units Constructed After September 18, 1978		X	
Db	Industrial-Commercial-Institutional Steam Generating Units		X	X
Dc	Small Industrial-Commercial-Institutional Steam Generating Units		X	
E	Incinerators		X	
Ea	Municipal Waste Combustors Constructed After December 20, 1989 and On or Before September 20, 1994		X	
Eb	Large Municipal Waste Combustors Constructed After September 20, 1994			
Ec	Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996			
F	Portland Cement Plants		X	

Table 11 to Paragraph (d)(2)(ix)—Delegation Status for New Source Performance Standards for Tuolumne County APCD, Ventura County APCD, and Yolo-Solano AQMD

	Subpart	Air pollution control agency		
		Tuolumne County APCD	Ventura County APCD	Yolo-Solano AQMD
G	Nitric Acid Plants		X	
H	Sulfuric Acid Plant		X	
I	Hot Mix Asphalt Facilities		X	X
J	Petroleum Refineries		X	X
K	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978		X	X
Ka	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984		X	
Kb	Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984		X	
L	Secondary Lead Smelters		X	
M	Secondary Brass and Bronze Production Plants		X	
N	Primary Emissions from Basic Oxygen Process Furnaces for Which Construction is Commenced After June 11, 1973		X	
Na	Secondary Emissions from Basic Oxygen Process Steelmaking Facilities for Which Construction is Commenced After January 20, 1983		X	
O	Sewage Treatment Plants		X	
P	Primary Copper Smelters		X	
Q	Primary Zinc Smelters		X	
R	Primary Lead Smelters		X	
S	Primary Aluminum Reduction Plants		X	
T	Phosphate Fertilizer Industry: Wet Process Phosphoric Acid Plants		X	
U	Phosphate Fertilizer Industry: Superphosphoric Acid Plants		X	
V	Phosphate Fertilizer Industry: Diammonium Phosphate Plants		X	
W	Phosphate Fertilizer Industry: Triple Superphosphate Plants		X	
X	Phosphate Fertilizer Industry: Granular Triple Superphosphate Storage Facilities		X	

Table 11 to Paragraph (d)(2)(ix)—Delegation Status for New Source Performance Standards for Tuolumne County APCD, Ventura County APCD, and Yolo-Solano AQMD

	Subpart	Air pollution control agency		
		Tuolumne County APCD	Ventura County APCD	Yolo-Solano AQMD
Y	Coal Preparation and Processing Plants		X	
Z	Ferroalloy Production Facilities		X	
AA	Steel Plants: Electric Arc Furnaces Constructed After October 21, 1974 and On or Before August 17, 1983		X	X
AAa	Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 7, 1983		X	
BB	Kraft Pulp Mills		X	
CC	Glass Manufacturing Plants		X	
DD	Grain Elevators		X	
EE	Surface Coating of Metal Furniture		X	
FF	(Reserved)			
GG	Stationary Gas Turbines		X	
HH	Lime Manufacturing Plants		X	
KK	Lead-Acid Battery Manufacturing Plants		X	
LL	Metallic Mineral Processing Plants		X	
MM	Automobile and Light Duty Trucks Surface Coating Operations		X	
NN	Phosphate Rock Plants		X	
PP	Ammonium Sulfate Manufacture		X	
QQ	Graphic Arts Industry: Publication Rotogravure Printing		X	
RR	Pressure Sensitive Tape and Label Surface Coating Operations		X	
SS	Industrial Surface Coating: Large Appliances		X	
TT	Metal Coil Surface Coating		X	
UU	Asphalt Processing and Asphalt Roofing Manufacture		X	
VV	Equipment Leaks of VOC in the Synthetic Organic Industry Chemicals Manufacturing		X	
WW	Beverage Can Surface Coating Industry		X	

Table 11 to Paragraph (d)(2)(ix)—Delegation Status for New Source Performance Standards for Tuolumne County APCD, Ventura County APCD, and Yolo-Solano AQMD

	Subpart	Air pollution control agency		
		Tuolumne County APCD	Ventura County APCD	Yolo-Solano AQMD
XX	Bulk Gasoline Terminals			
AAA	New Residential Wood Heaters		X	
BBB	Rubber Tire Manufacturing Industry		X	
CCC	(Reserved)			
DDD	Volatile Organic Compounds (VOC) Emissions from the Polymer Manufacturing Industry		X	
EEE	(Reserved)			
FFF	Flexible Vinyl and Urethane Coating and Printing		X	
GGG	Equipment Leaks of VOC in Petroleum Refineries		X	
GGGa	Equipment Leaks of VOC in Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006			
HHH	Synthetic Fiber Production Facilities		X	
III	Volatile Organic Compound (VOC) Emissions From the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes		X	
JJJ	Petroleum Dry Cleaners		X	
KKK	Equipment Leaks of VOC From Onshore Natural Gas Processing Plants		X	
LLL	Onshore Natural Gas Processing: SO ₂ Emissions		X	
MMM	(Reserved)			
NNN	Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations		X	
OOO	Nonmetallic Mineral Processing Plants		X	X
PPP	Wool Fiberglass Insulation Manufacturing Plants		X	
QQQ	VOC Emissions From Petroleum Refinery Wastewater Systems		X	
RRR	Volatile Organic Compound Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes		X	
SSS	Magnetic Tape Coating Facilities		X	
TTT	Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machines		X	

Table 11 to Paragraph (d)(2)(ix)—Delegation Status for New Source Performance Standards for Tuolumne County APCD, Ventura County APCD, and Yolo-Solano AQMD

	Subpart	Air pollution control agency		
		Tuolumne County APCD	Ventura County APCD	Yolo-Solano AQMD
UUU	Calciners and Dryers in Mineral Industries		X	
VVV	Polymeric Coating of Supporting Substrates Facilities		X	
WWW	Municipal Solid Waste Landfills	X	X	

(3) *Hawaii*. The following table identifies delegations for Hawaii:

Delegation Status for New Source Performance Standards for Hawaii:

Delegation Status for New Source Performance Standards for Hawaii		
	Subpart	Hawaii
A	General Provisions	X
D	Fossil-Fuel Fired Steam Generators Constructed After August 17, 1971	X
Da	Electric Utility Steam Generating Units Constructed After September 18, 1978	X
Db	Industrial-Commercial-Institutional Steam Generating Units	X
Dc	Small Industrial Steam Generating Units	X
E	Incinerators	X
Ea	Municipal Waste Combustors Constructed After December 20, 1989 and On or Before September 20, 1994	X
Eb	Municipal Waste Combustors Constructed After September 20, 1994	X
Ec	Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996	X
F	Portland Cement Plants	X
G	Nitric Acid Plants	
H	Sulfuric Acid Plants	
I	Hot Mix Asphalt Facilities	X
J	Petroleum Refineries	X
Ja	Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007	
K	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978	X
Ka	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After	X

Delegation Status for New Source Performance Standards for Hawaii

	Subpart	Hawaii
	May 18, 1978, and Prior to July 23, 1984	
Kb	Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984	X
L	Secondary Lead Smelters	
M	Secondary Brass and Bronze Production Plants	
N	Primary Emissions from Basic Oxygen Process Furnaces for Which Construction is Commenced After June 11, 1973	
Na	Secondary Emissions from Basic Oxygen Process Steelmaking Facilities for Which Construction is Commenced After January 20, 1983	
O	Sewage Treatment Plants	X
P	Primary Copper Smelters	
Q	Primary Zinc Smelters	
R	Primary Lead Smelters	
S	Primary Aluminum Reduction Plants	
T	Phosphate Fertilizer Industry: Wet Process Phosphoric Acid Plants	
U	Phosphate Fertilizer Industry: Superphosphoric Acid Plants	
V	Phosphate Fertilizer Industry: Diammonium Phosphate Plants	
W	Phosphate Fertilizer Industry: Triple Superphosphate Plants	
X	Phosphate Fertilizer Industry: Granular Triple Superphosphate Storage Facilities	
Y	Coal Preparation Plants	X
Z	Ferroalloy Production Facilities	
AA	Steel Plants: Electric Arc Furnaces Constructed After October 21, 1974 and On or Before August 17, 1983	X
AAa	Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 7, 1983	X
BB	Kraft pulp Mills	
CC	Glass Manufacturing Plants	
DD	Grain Elevators	
EE	Surface Coating of Metal Furniture	
FF	(Reserved)	
GG	Stationary Gas Turbines	X

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Delegation Status for New Source Performance Standards for Hawaii

	Subpart	Hawaii
HH	Lime Manufacturing Plants	
KK	Lead-Acid Battery Manufacturing Plants	
LL	Metallic Mineral Processing Plants	
MM	Automobile and Light Duty Trucks Surface Coating Operations	
NN	Phosphate Rock Plants	
PP	Ammonium Sulfate Manufacture	
QQ	Graphic Arts Industry: Publication Rotogravure Printing	
RR	Pressure Sensitive Tape and Label Surface Coating Operations	
SS	Industrial Surface Coating: Large Appliances	
TT	Metal Coil Surface Coating	
UU	Asphalt Processing and Asphalt Roofing Manufacture	
VV	Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry	X
VVa	Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006	
WW	Beverage Can Surface Coating Industry	X
XX	Bulk Gasoline Terminals	X
AAA	New Residential Wool Heaters	
BBB	Rubber Tire Manufacturing Industry	
CCC	(Reserved)	
DDD	Volatile Organic Compounds (VOC) Emissions from the Polymer Manufacturing Industry	
EEE	(Reserved)	
FFF	Flexible Vinyl and Urethane Coating and Printing	
GGG	Equipment Leaks of VOC in Petroleum Refineries	X
GGGa	Equipment Leaks of VOC in Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006	
HHH	Synthetic Fiber Production Facilities	
III	Volatile Organic Compound (VOC) Emissions From the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes	
JJJ	Petroleum Dry Cleaners	X

Delegation Status for New Source Performance Standards for Hawaii

	Subpart	Hawaii
KKK	Equipment Leaks of VOC From Onshore Natural Gas Processing Plants	
LLL	Onshore Natural Gas Processing: SO ₂ Emissions	
MMM	(Reserved)	
NNN	Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations	X
OOO	Nonmetallic Mineral Processing Plants	X
PPP	Wool Fiberglass Insulation Manufacturing Plants	
QQQ	VOC Emissions From Petroleum Refinery Wastewater	X
RRR	Volatile Organic Compound Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes	
SSS	Magnetic Tape Coating Facilities	
TTT	Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machines	
UUU	Calciners and Dryers in Mineral Industries	X
VVV	Polymeric Coating of Supporting Substrates Facilities	X
WWW	Municipal Solid Waste Landfills	X
AAAA	Small Municipal Waste Combustion Units for Which Construction is Commenced After August 30, 1999 or for Which Modification or Reconstruction is Commenced After June 6, 2001	X
CCCC	Commercial and Industrial Solid Waste Incineration Units for Which Construction Is Commenced After November 30, 1999 or for Which Modification or Reconstruction Is Commenced on or After June 1, 2001	X
EEEE	Other Solid Waste Incineration Units for Which Construction is Commenced After December 9, 2004, or for Which Modification or Reconstruction is Commenced on or After June 16, 2006	
GGGG	(Reserved)	
IIII	Stationary Compression Ignition Internal Combustion Engines	
JJJJ	Stationary Spark Ignition Internal Combustion Engines	
KKKK	Stationary Combustion Turbines	

(4) *Nevada*. The following table identifies delegations for Nevada:

Table 12 to Paragraph (d)(4)—Delegation Status for New Source Performance Standards for Nevada

	Subpart	Air pollution control agency

Permit Issued: [month day, year]

Permit Expires: [month day, year]

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		Nevada DEP	Clark County	Washoe County
A	General Provisions	X	X	X
Cf	Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills	X		
D	Fossil-Fuel Fired Steam Generators Constructed After August 17, 1971	X	X	X
Da	Electric Utility Steam Generating Units Constructed After September 18, 1978	X	X	
Db	Industrial-Commercial-Institutional Steam Generating Units	X	X	
Dc	Small Industrial-Commercial-Institutional Steam Generating Units	X	X	
E	Incinerators	X	X	X
Ea	Municipal Waste Combustors Constructed After December 20, 1989 and On or Before September 20, 1994	X	X	
Eb	Large Municipal Waste Combustors Constructed After September 20, 1994	X	X	
Ec	Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996	X	X	
F	Portland Cement Plants	X	X	X
G	Nitric Acid Plants	X	X	
Ga	Nitric Acid Plants For Which Construction, Reconstruction or Modification Commenced After October 14, 2011	X		
H	Sulfuric Acid Plant	X	X	
I	Hot Mix Asphalt Facilities	X	X	X
J	Petroleum Refineries	X	X	
Ja	Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007	X		
K	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978	X	X	X
Ka	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984	X	X	X
Kb	Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984	X	X	
L	Secondary Lead Smelters	X	X	X
M	Secondary Brass and Bronze Production Plants	X	X	
N	Primary Emissions from Basic Oxygen Process Furnaces for Which Construction is Commenced After June 11, 1973	X	X	
Na	Secondary Emissions from Basic Oxygen Process Steelmaking Facilities for Which Construction is	X	X	

Table 12 to Paragraph (d)(4)—Delegation Status for New Source Performance Standards for Nevada

	Subpart	Air pollution control agency		
		Nevada DEP	Clark County	Washoe County
	Commenced After January 20, 1983			
O	Sewage Treatment Plants	X	X	X
P	Primary Copper Smelters	X	X	X
Q	Primary Zinc Smelters	X	X	X
R	Primary Lead Smelters	X	X	X
S	Primary Aluminum Reduction Plants	X	X	
T	Phosphate Fertilizer Industry: Wet Process Phosphoric Acid Plants		X	
U	Phosphate Fertilizer Industry: Superphosphoric Acid Plants		X	
V	Phosphate Fertilizer Industry: Diammonium Phosphate Plants		X	
W	Phosphate Fertilizer Industry: Triple Superphosphate Plants		X	
X	Phosphate Fertilizer Industry: Granular Triple Superphosphate Storage Facilities		X	
Y	Coal Preparation and Processing Plants	X	X	X
Z	Ferroalloy Production Facilities	X	X	
AA	Steel Plants: Electric Arc Furnaces Constructed After October 21, 1974 and On or Before August 17, 1983	X	X	
AAa	Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 7, 1983	X	X	
BB	Kraft Pulp Mills		X	
CC	Glass Manufacturing Plants	X	X	
DD	Grain Elevators	X	X	X
EE	Surface Coating of Metal Furniture	X	X	X
FF	(Reserved)			
GG	Stationary Gas Turbines	X	X	X
HH	Lime Manufacturing Plants	X	X	X
KK	Lead-Acid Battery Manufacturing Plants	X	X	X
LL	Metallic Mineral Processing Plants	X	X	X

Table 12 to Paragraph (d)(4)—Delegation Status for New Source Performance Standards for Nevada

	Subpart	Air pollution control agency		
		Nevada DEP	Clark County	Washoe County
MM	Automobile and Light Duty Trucks Surface Coating Operations	X	X	X
NN	Phosphate Rock Plants	X	X	X
PP	Ammonium Sulfate Manufacture	X	X	
QQ	Graphic Arts Industry: Publication Rotogravure Printing	X	X	X
RR	Pressure Sensitive Tape and Label Surface Coating Operations	X	X	
SS	Industrial Surface Coating: Large Appliances	X	X	X
TT	Metal Coil Surface Coating	X	X	X
UU	Asphalt Processing and Asphalt Roofing Manufacture	X	X	X
VV	Equipment Leaks of VOC in the Synthetic Organic Industry Chemicals Manufacturing	X	X	X
VVa	Equipment Leaks of VOC in the Synthetic Organic Industry for Which Construction, Reconstruction, or Chemicals Manufacturing Modification Commenced After November 7, 2006	X	X	
WW	Beverage Can Surface Coating Industry	X	X	
XX	Bulk Gasoline Terminals	X	X	
AAA	New Residential Wood Heaters		X	
BBB	Rubber Tire Manufacturing Industry	X	X	
CCC	(Reserved)			
DDD	Volatile Organic Compounds (VOC) Emissions from the Polymer Manufacturing Industry	X	X	
EEE	(Reserved)			
FFF	Flexible Vinyl and Urethane Coating and Printing	X	X	
GGG	Equipment Leaks of VOC in Petroleum Refineries	X	X	
GGGa	Equipment Leaks of VOC in Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006	X	X	
HHH	Synthetic Fiber Production Facilities	X	X	
III	Volatile Organic Compound (VOC) Emissions From the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes	X	X	
JJJ	Petroleum Dry Cleaners	X	X	X
KKK	Equipment Leaks of VOC From Onshore Natural Gas Processing Plants	X	X	

Table 12 to Paragraph (d)(4)—Delegation Status for New Source Performance Standards for Nevada

	Subpart	Air pollution control agency		
		Nevada DEP	Clark County	Washoe County
LLL	Onshore Natural Gas Processing: SO ₂ Emissions	X	X	
MMM	(Reserved)			
NNN	Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations	X	X	
OOO	Nonmetallic Mineral Processing Plants	X	X	
PPP	Wool Fiberglass Insulation Manufacturing Plants	X	X	
QQQ	VOC Emissions From Petroleum Refinery Wastewater Systems	X	X	
RRR	Volatile Organic Compound Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes	X	X	
SSS	Magnetic Tape Coating Facilities	X	X	
TTT	Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machines	X	X	X
UUU	Calciners and Dryers in Mineral Industries	X	X	X
VVV	Polymeric Coating of Supporting Substrates Facilities	X	X	X
WWW	Municipal Solid Waste Landfills	X	X	X
XXX	Municipal Solid Waste Landfills that Commenced Construction, Reconstruction, or Modification after July 17, 2014	X		
AAAA	Small Municipal Waste Combustion Units for Which Construction is Commenced After August 30, 1999 or for Which Modification or Reconstruction is Commenced After June 6, 2001	X	X	X
CCCC	Commercial and Industrial Solid Waste Incineration Units for Which Construction Is Commenced After November 30, 1999 or for Which Modification or Reconstruction Is Commenced on or After June 1, 2001	X	X	X
EEEE	Other Solid Waste Incineration Units for Which Construction is Commenced After December 9, 2004, or for Which Modification or Reconstruction is Commenced on or After June 16, 2006	X	X	X
GGGG	(Reserved)			
HHHH	(Reserved)			
IIII	Stationary Compression Ignition Internal Combustion Engines	X	X	X
JJJJ	Stationary Spark Ignition Internal Combustion Engines	X	X	X
KKKK	Stationary Combustion Turbines	X	X	X

Table 12 to Paragraph (d)(4)—Delegation Status for New Source Performance Standards for Nevada

	Subpart	Air pollution control agency		
		Nevada DEP	Clark County	Washoe County
LLLL	New Sewage Sludge Incineration Units		X	
OOOO	Crude Oil and Natural Gas Production, Transmission, and Distribution	X		

(5) *Guam*. The following table identifies delegations as of June 15, 2001:

Delegation Status for New Source Performance Standards for Guam

	Subpart	Guam
A	General Provisions	X
D	Fossil-Fuel Fired Steam Generators Constructed After August 17, 1971	X
Da	Electric Utility Steam Generating Units Constructed After September 18, 1978	
Db	Industrial-Commercial-Institutional Steam Generating Units	
Dc	Small Industrial Steam Generating Units	
E	Incinerators	
Ea	Municipal Waste Combustors Constructed After December 20, 1989 and On or Before September 20, 1994	
Eb	Municipal Waste Combustors Constructed After September 20, 1994	
Ec	Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996	
F	Portland Cement Plants	X
G	Nitric Acid Plants	
H	Sulfuric Acid Plants	
I	Hot Mix Asphalt Facilities	X
J	Petroleum Refineries	X
K	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978	X

(e) The following lists the specific part 60 standards that have been delegated unchanged to the air pollution control agencies in Region 6.

(1) *New Mexico*. The New Mexico Environment Department has been delegated all part 60 standards promulgated by the EPA, except subpart AAA—Standards of Performance for New Residential Wood Heaters; and subpart QQQQ—Standards of Performance for New Residential Hydronic Heaters and Forced-Air Furnaces, as amended in the Federal Register through January 15, 2017.

(2) *Louisiana*. The Louisiana Department of Environmental Quality has been delegated all part 60 standards promulgated by EPA, except subpart AAA—Standards of Performance for New Residential Wood Heaters, as amended in the Federal Register through July 1, 2013.

Delegation Status for Part 60 Standards—State of Louisiana

[Excluding Indian Country]

Subpart	Source category	LDEQ ¹
A	General Provisions	Yes
Ce	Emission Guidelines and Compliance Times for Hospital/Medical/Infectious Waste Incinerators	Yes
D	Fossil Fueled Steam Generators (>250 MM BTU/hr)	Yes
Da	Electric Utility Steam Generating Units (>250 MM BTU/hr)	Yes
Db	Industrial-Commercial-Institutional Steam Generating Units (100 to 250 MM BTU/hr)	Yes
Dc	Industrial-Commercial-Institutional Small Steam Generating Units (10 to 100 MM BTU/hr)	Yes
E	Incinerators (>50 tons per day)	Yes
Ea	Municipal Waste Combustors	Yes
Eb	Large Municipal Waste Combustors	Yes
Ec	Hospital/Medical/Infectious Waste Incinerators	Yes
F	Portland Cement Plants	Yes
G	Nitric Acid Plants	Yes
Ga	Nitric Acid Plants (after October 14, 2011)	Yes
H	Sulfuric Acid Plants	Yes
I	Hot Mix Asphalt Facilities	Yes
J	Petroleum Refineries	Yes
Ja	Petroleum Refineries (After May 14, 2007)	Yes
K	Storage Vessels for Petroleum Liquids (After 6/11/73 & Before 5/19/78)	Yes
Ka	Storage Vessels for Petroleum Liquids (After 6/11/73 & Before 5/19/78)	Yes
Kb	Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Stg/Vessels) After 7/23/84	Yes
L	Secondary Lead Smelters Yes	Yes
M	Secondary Brass and Bronze Production Plants	Yes
N	Primary Emissions from Basic Oxygen Process Furnaces (Construction Commenced After June 11, 1973)	Yes
Na	Secondary Emissions from Basic Oxygen Process Steelmaking Facilities Construction is Commenced After January 20, 1983	Yes

Delegation Status for Part 60 Standards—State of Louisiana
[Excluding Indian Country]

Subpart	Source category	LDEQ ¹
O	Sewage Treatment Plants	Yes
P	Primary Copper Smelters	Yes
Q	Primary Zinc Smelters	Yes
R	Primary Lead Smelters	Yes
S	Primary Aluminum Reduction Plants	Yes
T	Phosphate Fertilizer Industry: Wet Process Phosphoric Plants	Yes
U	Phosphate Fertilizer Industry: Superphosphoric Acid Plants	Yes
V	Phosphate Fertilizer Industry: Diammonium Phosphate Plants	Yes
W	Phosphate Fertilizer Industry: Triple Superphosphate Plants	Yes
X	Phosphate Fertilizer Industry: Granular Triple Superphosphate Storage Facilities	Yes
Y	Coal Preparation Plants	Yes
Z	Ferroalloy Production Facilities	Yes
AA	Steel Plants: Electric Arc Furnaces After 10/21/74 & On or Before 8/17/83	Yes
AAa	Steel Plants: Electric Arc Furnaces & Argon-Oxygen Decarburization Vessels After 8/07/83	Yes
BB	Kraft Pulp Mills	Yes
CC	Glass Manufacturing Plants	Yes
DD	Grain Elevators	Yes
EE	Surface Coating of Metal Furniture	Yes
GG	Stationary Gas Turbines	Yes
HH	Lime Manufacturing Plants	Yes
KK	Lead-Acid Battery Manufacturing Plants	Yes
LL	Metallic Mineral Processing Plants	Yes
MM	Automobile & Light Duty Truck Surface Coating Operations	Yes
NN	Phosphate Manufacturing Plants	Yes
PP	Ammonium Sulfate Manufacture	Yes
QQ	Graphic Arts Industry: Publication Rotogravure Printing	Yes
RR	Pressure Sensitive Tape and Label Surface Coating Operations	Yes

Delegation Status for Part 60 Standards—State of Louisiana
[Excluding Indian Country]

Subpart	Source category	LDEQ ¹
SS	Industrial Surface Coating: Large Appliances	Yes
TT	Metal Coil Surface Coating	Yes
UU	Asphalt Processing and Asphalt Roofing Manufacture	Yes
VV	VOC Equipment Leaks in the SOCMI Industry	Yes
VVa	VOC Equipment Leaks in the SOCMI Industry (After November 7, 2006)	Yes
XX	Bulk Gasoline Terminals	Yes
AAA	New Residential Wood Heaters	No
BBB	Rubber Tire Manufacturing Industry	Yes
DDD	Volatile Organic Compound (VOC) Emissions from the Polymer Manufacturing Industry	Yes
FFF	Flexible Vinyl and Urethane Coating and Printing	Yes
GGG	VOC Equipment Leaks in Petroleum Refineries	Yes
HHH	Synthetic Fiber Production	Yes
III	VOC Emissions from the SOCMI Air Oxidation Unit Processes	Yes
JJJ	Petroleum Dry Cleaners	Yes
KKK	VOC Equipment Leaks From Onshore Natural Gas Processing Plants	Yes
LLL	Onshore Natural Gas Processing: SO ₂ Emissions	Yes
NNN	VOC Emissions from SOCMI Distillation Operations	Yes
OOO	Nonmetallic Mineral Processing Plants	Yes
PPP	Wool Fiberglass Insulation Manufacturing Plants	Yes
QQQ	VOC Emissions From Petroleum Refinery Wastewater Systems	Yes
RRR	VOC Emissions from SOCMI Reactor Processes	Yes
SSS	Magnetic Tape Coating Operations	Yes
TTT	Industrial Surface Coating: Plastic Parts for Business Machines	Yes
UUU	Calciners and Dryers in Mineral Industries	Yes
VVV	Polymeric Coating of Supporting Substrates Facilities	Yes
WWW	Municipal Solid Waste Landfills	Yes
AAAA	Small Municipal Waste Combustion Units (Construction is Commenced After 8/30/99 or	Yes

Delegation Status for Part 60 Standards—State of Louisiana

[Excluding Indian Country]

Subpart	Source category	LDEQ ¹
	Modification/Reconstruction is Commenced After 6/06/2001)	
CCCC	Commercial & Industrial Solid Waste Incineration Units (Construction is Commenced After 11/30/1999 or Modification/Reconstruction is Commenced on or After 6/01/2001)	Yes
DDDD	Emission Guidelines & Compliance Times for Commercial & Industrial Solid Waste Incineration Units (Commenced Construction On or Before 11/30/1999)	Yes
EEEE	Other Solid Waste Incineration Units (Constructed after 12/09/2004 or Modification/Reconstruction is commenced on or after 06/16/2004)	Yes
IIII	Stationary Compression Ignition Internal Combustion Engines	Yes
JJJJ	Stationary Spark Ignition Internal Combustion Engines	Yes
KKKK	Stationary Combustion Turbines (Construction Commenced After 02/18/2005)	Yes
LLLL	New Sewage Sludge Incineration Units	Yes
MMMM	Emission Guidelines and Compliance Times for Existing Sewage Sludge Incineration Units	Yes
OOOO	Crude Oil and Natural Gas Production, Transmission and Distribution	Yes

¹ The Louisiana Department of Environmental Quality (LDEQ) has been delegated all Part 60 standards promulgated by EPA, except subpart AAA—Standards of Performance for New Residential Wood Heaters—as amended in the Federal Register through July 1, 2013.

(3) *Albuquerque-Bernalillo County Air Quality Control Board*. The Albuquerque-Bernalillo County Air Quality Control Board has been delegated all part 60 standards promulgated by the EPA, except subpart AAA of this part and subpart QQQQ of this part as amended through January 23, 2017.

Editorial Note

Editorial Note: For Federal Register citations affecting § 60.4, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and at www.govinfo.gov.

§ 60.5 Determination of construction or modification.

- (a) When requested to do so by an owner or operator, the Administrator will make a determination of whether action taken or intended to be taken by such owner or operator constitutes construction (including reconstruction) or modification or the commencement thereof within the meaning of this part.
- (b) The Administrator will respond to any request for a determination under paragraph (a) of this section within 30 days of receipt of such request.

§ 60.6 Review of plans.

- (a) When requested to do so by an owner or operator, the Administrator will review plans for construction or modification for the purpose of providing technical advice to the owner or operator.
- (b)

- (1) A separate request shall be submitted for each construction or modification project.
 - (2) Each request shall identify the location of such project, and be accompanied by technical information describing the proposed nature, size, design, and method of operation of each affected facility involved in such project, including information on any equipment to be used for measurement or control of emissions.
- (c) Neither a request for plans review nor advice furnished by the Administrator in response to such request shall
- (1) relieve an owner or operator of legal responsibility for compliance with any provision of this part or of any applicable State or local requirement, or
 - (2) prevent the Administrator from implementing or enforcing any provision of this part or taking any other action authorized by the Act.

§ 60.7 Notification and record keeping.

- (a) Any owner or operator subject to the provisions of this part shall furnish the Administrator written notification or, if acceptable to both the Administrator and the owner or operator of a source, electronic notification, as follows:
- (1) A notification of the date construction (or reconstruction as defined under § 60.15) of an affected facility is commenced postmarked no later than 30 days after such date. This requirement shall not apply in the case of mass-produced facilities which are purchased in completed form.
 - (2) [Reserved]
 - (3) A notification of the actual date of initial startup of an affected facility postmarked within 15 days after such date.
 - (4) A notification of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in § 60.14(e). This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The Administrator may request additional relevant information subsequent to this notice.
 - (5) A notification of the date upon which demonstration of the continuous monitoring system performance commences in accordance with § 60.13(c). Notification shall be postmarked not less than 30 days prior to such date.
 - (6) A notification of the anticipated date for conducting the opacity observations required by § 60.11(e)(1) of this part. The notification shall also include, if appropriate, a request for the Administrator to provide a visible emissions reader during a performance test. The notification shall be postmarked not less than 30 days prior to such date.
 - (7) A notification that continuous opacity monitoring system data results will be used to determine compliance with the applicable opacity standard during a performance test required by § 60.8 in lieu of

Method 9 observation data as allowed by § 60.11(e)(5) of this part. This notification shall be postmarked not less than 30 days prior to the date of the performance test.

(b) Any owner or operator subject to the provisions of this part shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.

(c) Each owner or operator required to install a continuous monitoring device shall submit excess emissions and monitoring systems performance report (excess emissions are defined in applicable subparts) and/or summary report form (see paragraph (d) of this section) to the Administrator semiannually, except when: more frequent reporting is specifically required by an applicable subpart; or the Administrator, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the source. All reports shall be postmarked by the 30th day following the end of each six-month period. Written reports of excess emissions shall include the following information:

(1) The magnitude of excess emissions computed in accordance with § 60.13(h), any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions. The process operating time during the reporting period.

(2) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected facility. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted.

(3) The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.

(4) When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.

(d) The summary report form shall contain the information and be in the format shown in figure 1 unless otherwise specified by the Administrator. One summary report form shall be submitted for each pollutant monitored at each affected facility.

(1) If the total duration of excess emissions for the reporting period is less than 1 percent of the total operating time for the reporting period and CMS downtime for the reporting period is less than 5 percent of the total operating time for the reporting period, only the summary report form shall be submitted and the excess emission report described in § 60.7(c) need not be submitted unless requested by the Administrator.

(2) If the total duration of excess emissions for the reporting period is 1 percent or greater of the total operating time for the reporting period or the total CMS downtime for the reporting period is 5 percent or greater of the total operating time for the reporting period, the summary report form and the excess emission report described in § 60.7(c) shall both be submitted.

Figure 1—Summary Report—Gaseous and Opacity Excess Emission and Monitoring System Performance
Pollutant (Circle One—SO₂/NO_x/TRS/H₂S/CO/Opacity)

Reporting period dates: From _____ to _____

Permit Issued: [month day, year]
Permit Expires: [month day, year]

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Company:

Emission Limitation

Address:

Monitor Manufacturer and Model No.

Date of Latest CMS Certification or Audit

Process Unit(s) Description:

Total source operating time in reporting period¹

Emission data summary ¹		CMS performance summary ¹	
1. Duration of excess emissions in reporting period due to:		1. CMS downtime in reporting period due to:	
a. Startup/shutdown		a. Monitor equipment malfunctions	
b. Control equipment problems		b. Non-Monitor equipment malfunctions	
c. Process problems		c. Quality assurance calibration	
d. Other known causes		d. Other known causes	
e. Unknown causes		e. Unknown causes	
2. Total duration of excess emission		2. Total CMS Downtime	
3. Total duration of excess emissions × (100) [Total source operating time]	% ²	3. [Total CMS Downtime] × (100) [Total source operating time]	% ²

¹ For opacity, record all times in minutes. For gases, record all times in hours.

² For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in § 60.7(c) shall be submitted.

On a separate page, describe any changes since last quarter in CMS, process or controls. I certify that the information contained in this report is true, accurate, and complete.

Name

Signature

Title

Date

(e)

(1) Notwithstanding the frequency of reporting requirements specified in paragraph (c) of this section, an owner or operator who is required by an applicable subpart to submit excess emissions and

monitoring systems performance reports (and summary reports) on a quarterly (or more frequent) basis may reduce the frequency of reporting for that standard to semiannual if the following conditions are met:

- (i) For 1 full year (e.g., 4 quarterly or 12 monthly reporting periods) the affected facility's excess emissions and monitoring systems reports submitted to comply with a standard under this part continually demonstrate that the facility is in compliance with the applicable standard;
- (ii) The owner or operator continues to comply with all recordkeeping and monitoring requirements specified in this subpart and the applicable standard; and
- (iii) The Administrator does not object to a reduced frequency of reporting for the affected facility, as provided in paragraph (e)(2) of this section.

(2) The frequency of reporting of excess emissions and monitoring systems performance (and summary) reports may be reduced only after the owner or operator notifies the Administrator in writing of his or her intention to make such a change and the Administrator does not object to the intended change. In deciding whether to approve a reduced frequency of reporting, the Administrator may review information concerning the source's entire previous performance history during the required recordkeeping period prior to the intended change, including performance test results, monitoring data, and evaluations of an owner or operator's conformance with operation and maintenance requirements. Such information may be used by the Administrator to make a judgment about the source's potential for noncompliance in the future. If the Administrator disapproves the owner or operator's request to reduce the frequency of reporting, the Administrator will notify the owner or operator in writing within 45 days after receiving notice of the owner or operator's intention. The notification from the Administrator to the owner or operator will specify the grounds on which the disapproval is based. In the absence of a notice of disapproval within 45 days, approval is automatically granted.

(3) As soon as monitoring data indicate that the affected facility is not in compliance with any emission limitation or operating parameter specified in the applicable standard, the frequency of reporting shall revert to the frequency specified in the applicable standard, and the owner or operator shall submit an excess emissions and monitoring systems performance report (and summary report, if required) at the next appropriate reporting period following the noncomplying event. After demonstrating compliance with the applicable standard for another full year, the owner or operator may again request approval from the Administrator to reduce the frequency of reporting for that standard as provided for in paragraphs (e)(1) and (e)(2) of this section.

(f) Any owner or operator subject to the provisions of this part shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by this part recorded in a permanent form suitable for inspection. The file shall be retained for at least two years following the date of such measurements, maintenance, reports, and records, except as follows:

- (1) This paragraph applies to owners or operators required to install a continuous emissions monitoring system (CEMS) where the CEMS installed is automated, and where the calculated data averages do not

exclude periods of CEMS breakdown or malfunction. An automated CEMS records and reduces the measured data to the form of the pollutant emission standard through the use of a computerized data acquisition system. In lieu of maintaining a file of all CEMS subhourly measurements as required under paragraph (f) of this section, the owner or operator shall retain the most recent consecutive three averaging periods of subhourly measurements and a file that contains a hard copy of the data acquisition system algorithm used to reduce the measured data into the reportable form of the standard.

(2) This paragraph applies to owners or operators required to install a CEMS where the measured data is manually reduced to obtain the reportable form of the standard, and where the calculated data averages do not exclude periods of CEMS breakdown or malfunction. In lieu of maintaining a file of all CEMS subhourly measurements as required under paragraph (f) of this section, the owner or operator shall retain all subhourly measurements for the most recent reporting period. The subhourly measurements shall be retained for 120 days from the date of the most recent summary or excess emission report submitted to the Administrator.

(3) The Administrator or delegated authority, upon notification to the source, may require the owner or operator to maintain all measurements as required by paragraph (f) of this section, if the Administrator or the delegated authority determines these records are required to more accurately assess the compliance status of the affected source.

(g) If notification substantially similar to that in paragraph (a) of this section is required by any other State or local agency, sending the Administrator a copy of that notification will satisfy the requirements of paragraph (a) of this section.

(h) Individual subparts of this part may include specific provisions which clarify or make inapplicable the provisions set forth in this section.

§ 60.8 Performance tests.

(a) Except as specified in paragraphs (a)(1), (a)(2), (a)(3), and (a)(4) of this section, within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility, or at such other times specified by this part, and at such other times as may be required by the Administrator under section 114 of the Act, the owner or operator of such facility shall conduct performance test(s) and furnish the Administrator a written report of the results of such performance test(s).

(1) If a force majeure is about to occur, occurs, or has occurred for which the affected owner or operator intends to assert a claim of force majeure, the owner or operator shall notify the Administrator, in writing as soon as practicable following the date the owner or operator first knew, or through due diligence should have known that the event may cause or caused a delay in testing beyond the regulatory deadline, but the notification must occur before the performance test deadline unless the initial force majeure or a subsequent force majeure event delays the notice, and in such cases, the notification shall occur as soon as practicable.

(2) The owner or operator shall provide to the Administrator a written description of the force majeure event and a rationale for attributing the delay in testing beyond the regulatory deadline to the force majeure; describe the measures taken or to be taken to minimize the delay; and identify a date by

which the owner or operator proposes to conduct the performance test. The performance test shall be conducted as soon as practicable after the force majeure occurs.

(3) The decision as to whether or not to grant an extension to the performance test deadline is solely within the discretion of the Administrator. The Administrator will notify the owner or operator in writing of approval or disapproval of the request for an extension as soon as practicable.

(4) Until an extension of the performance test deadline has been approved by the Administrator under paragraphs (a)(1), (2), and (3) of this section, the owner or operator of the affected facility remains strictly subject to the requirements of this part.

(b) Performance tests shall be conducted and data reduced in accordance with the test methods and procedures contained in each applicable subpart unless the Administrator

(1) specifies or approves, in specific cases, the use of a reference method with minor changes in methodology,

(2) approves the use of an equivalent method,

(3) approves the use of an alternative method the results of which he has determined to be adequate for indicating whether a specific source is in compliance,

(4) waives the requirement for performance tests because the owner or operator of a source has demonstrated by other means to the Administrator's satisfaction that the affected facility is in compliance with the standard, or

(5) approves shorter sampling times and smaller sample volumes when necessitated by process variables or other factors. Nothing in this paragraph shall be construed to abrogate the Administrator's authority to require testing under section 114 of the Act.

(c) Performance tests shall be conducted under such conditions as the Administrator shall specify to the plant operator based on representative performance of the affected facility. The owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard.

(d) The owner or operator of an affected facility shall provide the Administrator at least 30 days prior notice of any performance test, except as specified under other subparts, to afford the Administrator the opportunity to have an observer present. If after 30 days notice for an initially scheduled performance test, there is a delay (due to operational problems, etc.) in conducting the scheduled performance test, the owner or operator of an affected facility shall notify the Administrator (or delegated State or local agency) as soon as possible of any delay in the original test date, either by providing at least 7 days prior notice of the rescheduled date of the performance test, or by arranging a rescheduled date with the Administrator (or delegated State or local agency) by mutual agreement.

(e) The owner or operator of an affected facility shall provide, or cause to be provided, performance testing facilities as follows:

(1) Sampling ports adequate for test methods applicable to such facility. This includes

- (i) constructing the air pollution control system such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and procedures and
- (ii) providing a stack or duct free of cyclonic flow during performance tests, as demonstrated by applicable test methods and procedures.

(2) Safe sampling platform(s).

(3) Safe access to sampling platform(s).

(4) Utilities for sampling and testing equipment.

(f) Unless otherwise specified in the applicable subpart, each performance test shall consist of three separate runs using the applicable test method.

(1) Each run shall be conducted for the time and under the conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic means of results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances, beyond the owner or operator's control, compliance may, upon the Administrator's approval, be determined using the arithmetic mean of the results of the two other runs.

(2) Contents of report (electronic or paper submitted copy). Unless otherwise specified in a relevant standard or test method, or as otherwise approved by the Administrator in writing, the report for a performance test shall include the elements identified in paragraphs (f)(2)(i) through (vi) of this section.

(i) General identification information for the facility includes a mailing address, the physical address, the owner or operator or responsible official (where applicable) and his/her email address, and the appropriate Federal Registry System (FRS) number for the facility.

(ii) Purpose of the test including the applicable regulation(s) requiring the test, the pollutant(s) and other parameters being measured, the applicable emission standard and any process parameter component, and a brief process description.

(iii) Description of the emission unit tested including fuel burned, control devices, and vent characteristics; the appropriate source classification code (SCC); the permitted maximum process rate (where applicable); and the sampling location.

(iv) Description of sampling and analysis procedures used and any modifications to standard procedures, quality assurance procedures and results, record of process operating conditions that demonstrate the applicable test conditions are met, and values for any operating parameters for which limits were being set during the test.

(v) Where a test method requires you record or report, the following shall be included: Record of preparation of standards, record of calibrations, raw data sheets for field sampling, raw data sheets for field and laboratory analyses, chain-of-custody documentation, and example calculations for reported results.

(vi) Identification of the company conducting the performance test including the primary office address, telephone number, and the contact for this test program including his/her email address.

(g) The performance testing shall include a test method performance audit (PA) during the performance test. The PAs consist of blind audit samples supplied by an accredited audit sample provider and analyzed during the performance test in order to provide a measure of test data bias. Gaseous audit samples are designed to audit the performance of the sampling system as well as the analytical system and must be collected by the sampling system during the compliance test just as the compliance samples are collected. If a liquid or solid audit sample is designed to audit the sampling system, it must also be collected by the sampling system during the compliance test. If multiple sampling systems or sampling trains are used during the compliance test for any of the test methods, the tester is only required to use one of the sampling systems per method to collect the audit sample. The audit sample must be analyzed by the same analyst using the same analytical reagents and analytical system and at the same time as the compliance samples. Retests are required when there is a failure to produce acceptable results for an audit sample. However, if the audit results do not affect the compliance or noncompliance status of the affected facility, the compliance authority may waive the reanalysis requirement, further audits, or retests and accept the results of the compliance test. Acceptance of the test results shall constitute a waiver of the reanalysis requirement, further audits, or retests. The compliance authority may also use the audit sample failure and the compliance test results as evidence to determine the compliance or noncompliance status of the affected facility. A blind audit sample is a sample whose value is known only to the sample provider and is not revealed to the tested facility until after they report the measured value of the audit sample. For pollutants that exist in the gas phase at ambient temperature, the audit sample shall consist of an appropriate concentration of the pollutant in air or nitrogen that can be introduced into the sampling system of the test method at or near the same entry point as a sample from the emission source. If no gas phase audit samples are available, an acceptable alternative is a sample of the pollutant in the same matrix that would be produced when the sample is recovered from the sampling system as required by the test method. For samples that exist only in a liquid or solid form at ambient temperature, the audit sample shall consist of an appropriate concentration of the pollutant in the same matrix that would be produced when the sample is recovered from the sampling system as required by the test method. An accredited audit sample provider (AASP) is an organization that has been accredited to prepare audit samples by an independent, third party accrediting body.

(1) The source owner, operator, or representative of the tested facility shall obtain an audit sample, if commercially available, from an AASP for each test method used for regulatory compliance purposes. No audit samples are required for the following test methods: Methods 3A and 3C of appendix A-3 of part 60, Methods 6C, 7E, 9, and 10 of appendix A-4 of part 60, Methods 18 and 19 of appendix A-6 of part 60, Methods 20, 22, and 25A of appendix A-7 of part 60, Methods 30A and 30B of appendix A-8 of part 60, and Methods 303, 318, 320, and 321 of appendix A of part 63 of this chapter. If multiple sources at a single facility are tested during a compliance test event, only one audit sample is required for each method used during a compliance test. The compliance authority responsible for the compliance test may waive the requirement to include an audit sample if they believe that an audit sample is not necessary. "Commercially available" means that two or more independent AASPs have blind audit samples available for purchase. If the source owner, operator, or representative cannot find an audit sample for a specific method, the owner, operator, or representative shall consult the EPA

Web site at the following URL, www.epa.gov/ttn/emc, to confirm whether there is a source that can supply an audit sample for that method. If the EPA Web site does not list an available audit sample at least 60 days prior to the beginning of the compliance test, the source owner, operator, or representative shall not be required to include an audit sample as part of the quality assurance program for the compliance test. When ordering an audit sample, the source owner, operator, or representative shall give the sample provider an estimate for the concentration of each pollutant that is emitted by the source or the estimated concentration of each pollutant based on the permitted level and the name, address, and phone number of the compliance authority. The source owner, operator, or representative shall report the results for the audit sample along with a summary of the emission test results for the audited pollutant to the compliance authority and shall report the results of the audit sample to the AASP. The source owner, operator, or representative shall make both reports at the same time and in the same manner or shall report to the compliance authority first and then report to the AASP. If the method being audited is a method that allows the samples to be analyzed in the field and the tester plans to analyze the samples in the field, the tester may analyze the audit samples prior to collecting the emission samples provided a representative of the compliance authority is present at the testing site. The tester may request and the compliance authority may grant a waiver to the requirement that a representative of the compliance authority must be present at the testing site during the field analysis of an audit sample. The source owner, operator, or representative may report the results of the audit sample to the compliance authority and report the results of the audit sample to the AASP prior to collecting any emission samples. The test protocol and final test report shall document whether an audit sample was ordered and utilized and the pass/fail results as applicable.

(2) An AASP shall have and shall prepare, analyze, and report the true value of audit samples in accordance with a written technical criteria document that describes how audit samples will be prepared and distributed in a manner that will ensure the integrity of the audit sample program. An acceptable technical criteria document shall contain standard operating procedures for all of the following operations:

- (i) Preparing the sample;
- (ii) Confirming the true concentration of the sample;
- (iii) Defining the acceptance limits for the results from a well-qualified tester. This procedure must use well established statistical methods to analyze historical results from well qualified testers. The acceptance limits shall be set so that there is 95 percent confidence that 90 percent of well qualified labs will produce future results that are within the acceptance limit range.
- (iv) Providing the opportunity for the compliance authority to comment on the selected concentration level for an audit sample;
- (v) Distributing the sample to the user in a manner that guarantees that the true value of the sample is unknown to the user;
- (vi) Recording the measured concentration reported by the user and determining if the measured value is within acceptable limits;
- (vii) The AASP shall report the results from each audit sample in a timely manner to the compliance authority and then to the source owner, operator, or representative. The AASP shall

make both reports at the same time and in the same manner or shall report to the compliance authority first and then report to the source owner, operator, or representative. The results shall include the name of the facility tested, the date on which the compliance test was conducted, the name of the company performing the sample collection, the name of the company that analyzed the compliance samples including the audit sample, the measured result for the audit sample, and whether the testing company passed or failed the audit. The AASP shall report the true value of the audit sample to the compliance authority. The AASP may report the true value to the source owner, operator, or representative if the AASP's operating plan ensures that no laboratory will receive the same audit sample twice.

(viii) Evaluating the acceptance limits of samples at least once every two years to determine in cooperation with the voluntary consensus standard body if they should be changed;

(ix) Maintaining a database, accessible to the compliance authorities, of results from the audit that shall include the name of the facility tested, the date on which the compliance test was conducted, the name of the company performing the sample collection, the name of the company that analyzed the compliance samples including the audit sample, the measured result for the audit sample, the true value of the audit sample, the acceptance range for the measured value, and whether the testing company passed or failed the audit.

(3) The accrediting body shall have a written technical criteria document that describes how it will ensure that the AASP is operating in accordance with the AASP technical criteria document that describes how audit samples are to be prepared and distributed. This document shall contain standard operating procedures for all of the following operations:

(i) Checking audit samples to confirm their true value as reported by the AASP;

(ii) Performing technical systems audits of the AASP's facilities and operating procedures at least once every two years;

(iii) Providing standards for use by the voluntary consensus standard body to approve the accrediting body that will accredit the audit sample providers.

(4) The technical criteria documents for the accredited sample providers and the accrediting body shall be developed through a public process guided by a voluntary consensus standards body (VCSB). The VCSB shall operate in accordance with the procedures and requirements in the Office of Management and Budget Circular A-119. A copy of Circular A-119 is available upon request by writing the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th Street, NW., Washington, DC 20503, by calling (202) 395-6880 or downloading online at http://standards.gov/standards__gov/a119.cfm. The VCSB shall approve all accrediting bodies. The Administrator will review all technical criteria documents. If the technical criteria documents do not meet the minimum technical requirements in paragraphs (g)(2) through (4) of this section, the technical criteria documents are not acceptable and the proposed audit sample program is not capable of producing audit samples of sufficient quality to be used in a compliance test. All acceptable technical criteria documents shall be posted on the EPA Web site at the following URL, <http://www.epa.gov/ttn/emc>.

(h) Unless otherwise specified in the applicable subpart, each test location must be verified to be free of cyclonic flow and evaluated for the existence of emission gas stratification and the required number of

sampling traverse points. If other procedures are not specified in the applicable subpart to the regulations, use the appropriate procedures in Method 1 to check for cyclonic flow and Method 7E to evaluate emission gas stratification and selection of sampling points.

(i) Whenever the use of multiple calibration gases is required by a test method, performance specification, or quality assurance procedure in a part 60 standard or appendix, Method 205 of 40 CFR part 51, appendix M of this chapter, "Verification of Gas Dilution Systems for Field Instrument Calibrations," may be used.

§ 60.9 Availability of information.

The availability to the public of information provided to, or otherwise obtained by, the Administrator under this part shall be governed by part 2 of this chapter. (Information submitted voluntarily to the Administrator for the purposes of §§ 60.5 and 60.6 is governed by §§ 2.201 through 2.213 of this chapter and not by § 2.301 of this chapter.)

§ 60.10 State authority.

The provisions of this part shall not be construed in any manner to preclude any State or political subdivision thereof from:

- (a) Adopting and enforcing any emission standard or limitation applicable to an affected facility, provided that such emission standard or limitation is not less stringent than the standard applicable to such facility.
- (b) Requiring the owner or operator of an affected facility to obtain permits, licenses, or approvals prior to initiating construction, modification, or operation of such facility.

§ 60.11 Compliance with standards and maintenance requirements.

- (a) Compliance with standards in this part, other than opacity standards, shall be determined in accordance with performance tests established by § 60.8, unless otherwise specified in the applicable standard.
- (b) Compliance with opacity standards in this part shall be determined by conducting observations in accordance with Method 9 in appendix A of this part, any alternative method that is approved by the Administrator, or as provided in paragraph (e)(5) of this section. For purposes of determining initial compliance, the minimum total time of observations shall be 3 hours (30 6-minute averages) for the performance test or other set of observations (meaning those fugitive-type emission sources subject only to an opacity standard).
- (c) The opacity standards set forth in this part shall apply at all times except during periods of startup, shutdown, malfunction, and as otherwise provided in the applicable standard.
- (d) At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

(e)

(1) For the purpose of demonstrating initial compliance, opacity observations shall be conducted concurrently with the initial performance test required in § 60.8 unless one of the following conditions apply. If no performance test under § 60.8 is required, then opacity observations shall be conducted within 60 days after achieving the maximum production rate at which the affected facility will be operated but no later than 180 days after initial startup of the facility. If visibility or other conditions prevent the opacity observations from being conducted concurrently with the initial performance test required under § 60.8, the source owner or operator shall reschedule the opacity observations as soon after the initial performance test as possible, but not later than 30 days thereafter, and shall advise the Administrator of the rescheduled date. In these cases, the 30-day prior notification to the Administrator required in § 60.7(a)(6) shall be waived. The rescheduled opacity observations shall be conducted (to the extent possible) under the same operating conditions that existed during the initial performance test conducted under § 60.8. The visible emissions observer shall determine whether visibility or other conditions prevent the opacity observations from being made concurrently with the initial performance test in accordance with procedures contained in Method 9 of appendix B of this part. Opacity readings of portions of plumes which contain condensed, uncombined water vapor shall not be used for purposes of determining compliance with opacity standards. The owner or operator of an affected facility shall make available, upon request by the Administrator, such records as may be necessary to determine the conditions under which the visual observations were made and shall provide evidence indicating proof of current visible observer emission certification. Except as provided in paragraph (e)(5) of this section, the results of continuous monitoring by transmissometer which indicate that the opacity at the time visual observations were made was not in excess of the standard are probative but not conclusive evidence of the actual opacity of an emission, provided that the source shall meet the burden of proving that the instrument used meets (at the time of the alleged violation) Performance Specification 1 in appendix B of this part, has been properly maintained and (at the time of the alleged violation) that the resulting data have not been altered in any way.

(2) Except as provided in paragraph (e)(3) of this section, the owner or operator of an affected facility to which an opacity standard in this part applies shall conduct opacity observations in accordance with paragraph (b) of this section, shall record the opacity of emissions, and shall report to the Administrator the opacity results along with the results of the initial performance test required under § 60.8. The inability of an owner or operator to secure a visible emissions observer shall not be considered a reason for not conducting the opacity observations concurrent with the initial performance test.

(3) The owner or operator of an affected facility to which an opacity standard in this part applies may request the Administrator to determine and to record the opacity of emissions from the affected facility during the initial performance test and at such times as may be required. The owner or operator of the affected facility shall report the opacity results. Any request to the Administrator to determine and to record the opacity of emissions from an affected facility shall be included in the notification required in § 60.7(a)(6). If, for some reason, the Administrator cannot determine and record the opacity of emissions from the affected facility during the performance test, then the provisions of paragraph (e)(1) of this section shall apply.

(4) An owner or operator of an affected facility using a continuous opacity monitor (transmissometer) shall record the monitoring data produced during the initial performance test required by § 60.8 and shall furnish the Administrator a written report of the monitoring results along with Method 9 and § 60.8 performance test results.

(5) An owner or operator of an affected facility subject to an opacity standard may submit, for compliance purposes, continuous opacity monitoring system (COMS) data results produced during any performance test required under § 60.8 in lieu of Method 9 observation data. If an owner or operator elects to submit COMS data for compliance with the opacity standard, he shall notify the Administrator of that decision, in writing, at least 30 days before any performance test required under § 60.8 is conducted. Once the owner or operator of an affected facility has notified the Administrator to that effect, the COMS data results will be used to determine opacity compliance during subsequent tests required under § 60.8 until the owner or operator notifies the Administrator, in writing, to the contrary. For the purpose of determining compliance with the opacity standard during a performance test required under § 60.8 using COMS data, the minimum total time of COMS data collection shall be averages of all 6-minute continuous periods within the duration of the mass emission performance test. Results of the COMS opacity determinations shall be submitted along with the results of the performance test required under § 60.8. The owner or operator of an affected facility using a COMS for compliance purposes is responsible for demonstrating that the COMS meets the requirements specified in § 60.13(c) of this part, that the COMS has been properly maintained and operated, and that the resulting data have not been altered in any way. If COMS data results are submitted for compliance with the opacity standard for a period of time during which Method 9 data indicates noncompliance, the Method 9 data will be used to determine compliance with the opacity standard.

(6) Upon receipt from an owner or operator of the written reports of the results of the performance tests required by § 60.8, the opacity observation results and observer certification required by § 60.11(e)(1), and the COMS results, if applicable, the Administrator will make a finding concerning compliance with opacity and other applicable standards. If COMS data results are used to comply with an opacity standard, only those results are required to be submitted along with the performance test results required by § 60.8. If the Administrator finds that an affected facility is in compliance with all applicable standards for which performance tests are conducted in accordance with § 60.8 of this part but during the time such performance tests are being conducted fails to meet any applicable opacity standard, he shall notify the owner or operator and advise him that he may petition the Administrator within 10 days of receipt of notification to make appropriate adjustment to the opacity standard for the affected facility.

(7) The Administrator will grant such a petition upon a demonstration by the owner or operator that the affected facility and associated air pollution control equipment was operated and maintained in a manner to minimize the opacity of emissions during the performance tests; that the performance tests were performed under the conditions established by the Administrator; and that the affected facility and associated air pollution control equipment were incapable of being adjusted or operated to meet the applicable opacity standard.

(8) The Administrator will establish an opacity standard for the affected facility meeting the above requirements at a level at which the source will be able, as indicated by the performance and opacity tests, to meet the opacity standard at all times during which the source is meeting the mass or

concentration emission standard. The Administrator will promulgate the new opacity standard in the Federal Register.

(f) Special provisions set forth under an applicable subpart shall supersede any conflicting provisions in paragraphs (a) through (e) of this section.

(g) For the purpose of submitting compliance certifications or establishing whether or not a person has violated or is in violation of any standard in this part, nothing in this part shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed.

§ 60.12 Circumvention.

No owner or operator subject to the provisions of this part shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere.

§ 60.13 Monitoring requirements.

(a) For the purposes of this section, all continuous monitoring systems required under applicable subparts shall be subject to the provisions of this section upon promulgation of performance specifications for continuous monitoring systems under appendix B to this part and, if the continuous monitoring system is used to demonstrate compliance with emission limits on a continuous basis, appendix F to this part, unless otherwise specified in an applicable subpart or by the Administrator. Appendix F is applicable December 4, 1987.

(b) All continuous monitoring systems and monitoring devices shall be installed and operational prior to conducting performance tests under § 60.8. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation, and calibration of the device.

(c) If the owner or operator of an affected facility elects to submit continuous opacity monitoring system (COMS) data for compliance with the opacity standard as provided under § 60.11(e)(5), he shall conduct a performance evaluation of the COMS as specified in Performance Specification 1, appendix B, of this part before the performance test required under § 60.8 is conducted. Otherwise, the owner or operator of an affected facility shall conduct a performance evaluation of the COMS or continuous emission monitoring system (CEMS) during any performance test required under § 60.8 or within 30 days thereafter in accordance with the applicable performance specification in appendix B of this part. The owner or operator of an affected facility shall conduct COMS or CEMS performance evaluations at such other times as may be required by the Administrator under section 114 of the Act.

(1) The owner or operator of an affected facility using a COMS to determine opacity compliance during any performance test required under § 60.8 and as described in § 60.11(e)(5) shall furnish the Administrator two or, upon request, more copies of a written report of the results of the COMS performance evaluation described in paragraph (c) of this section at least 10 days before the performance test required under § 60.8 is conducted.

(2) Except as provided in paragraph (c)(1) of this section, the owner or operator of an affected facility shall furnish the Administrator within 60 days of completion two or, upon request, more copies of a written report of the results of the performance evaluation.

(d)

(1) Owners and operators of a CEMS installed in accordance with the provisions of this part, must check the zero (or low level value between 0 and 20 percent of span value) and span (50 to 100 percent of span value) calibration drifts at least once each operating day in accordance with a written procedure. The zero and span must, at a minimum, be adjusted whenever either the 24-hour zero drift or the 24-hour span drift exceeds two times the limit of the applicable performance specification in appendix B of this part. The system must allow the amount of the excess zero and span drift to be recorded and quantified whenever specified. Owners and operators of a COMS installed in accordance with the provisions of this part must check the zero and upscale (span) calibration drifts at least once daily. For a particular COMS, the acceptable range of zero and upscale calibration materials is defined in the applicable version of PS-1 in appendix B of this part. For a COMS, the optical surfaces, exposed to the effluent gases, must be cleaned before performing the zero and upscale drift adjustments, except for systems using automatic zero adjustments. The optical surfaces must be cleaned when the cumulative automatic zero compensation exceeds 4 percent opacity.

(2) Unless otherwise approved by the Administrator, the following procedures must be followed for a COMS. Minimum procedures must include an automated method for producing a simulated zero opacity condition and an upscale opacity condition using a certified neutral density filter or other related technique to produce a known obstruction of the light beam. Such procedures must provide a system check of all active analyzer internal optics with power or curvature, all active electronic circuitry including the light source and photodetector assembly, and electronic or electro-mechanical systems and hardware and or software used during normal measurement operation.

(e) Except for system breakdowns, repairs, calibration checks, and zero and span adjustments required under paragraph (d) of this section, all continuous monitoring systems shall be in continuous operation and shall meet minimum frequency of operation requirements as follows:

(1) All continuous monitoring systems referenced by paragraph (c) of this section for measuring opacity of emissions shall complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.

(2) All continuous monitoring systems referenced by paragraph (c) of this section for measuring emissions, except opacity, shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.

(f) All continuous monitoring systems or monitoring devices shall be installed such that representative measurements of emissions or process parameters from the affected facility are obtained. Additional procedures for location of continuous monitoring systems contained in the applicable Performance Specifications of appendix B of this part shall be used.

(g) When the effluents from a single affected facility or two or more affected facilities subject to the same emission standards are combined before being released to the atmosphere, the owner or operator may install applicable continuous monitoring systems on each effluent or on the combined effluent. When the affected facilities are not subject to the same emission standards, separate continuous monitoring

systems shall be installed on each effluent. When the effluent from one affected facility is released to the atmosphere through more than one point, the owner or operator shall install an applicable continuous monitoring system on each separate effluent unless the installation of fewer systems is approved by the Administrator. When more than one continuous monitoring system is used to measure the emissions from one affected facility (e.g., multiple breechings, multiple outlets), the owner or operator shall report the results as required from each continuous monitoring system.

(h)

(1) Owners or operators of all continuous monitoring systems for measurement of opacity shall reduce all data to 6-minute averages and for continuous monitoring systems other than opacity to 1-hour averages for time periods as defined in § 60.2. Six-minute opacity averages shall be calculated from 36 or more data points equally spaced over each 6-minute period.

(2) For continuous monitoring systems other than opacity, 1-hour averages shall be computed as follows, except that the provisions pertaining to the validation of partial operating hours are only applicable for affected facilities that are required by the applicable subpart to include partial hours in the emission calculations:

(i) Except as provided under paragraph (h)(2)(iii) of this section, for a full operating hour (any clock hour with 60 minutes of unit operation), at least four valid data points are required to calculate the hourly average, *i.e.*, one data point in each of the 15-minute quadrants of the hour.

(ii) Except as provided under paragraph (h)(2)(iii) of this section, for a partial operating hour (any clock hour with less than 60 minutes of unit operation), at least one valid data point in each 15-minute quadrant of the hour in which the unit operates is required to calculate the hourly average.

(iii) For any operating hour in which required maintenance or quality-assurance activities are performed:

(A) If the unit operates in two or more quadrants of the hour, a minimum of two valid data points, separated by at least 15 minutes, is required to calculate the hourly average; or

(B) If the unit operates in only one quadrant of the hour, at least one valid data point is required to calculate the hourly average.

(iv) If a daily calibration error check is failed during any operating hour, all data for that hour shall be invalidated, unless a subsequent calibration error test is passed in the same hour and the requirements of paragraph (h)(2)(iii) of this section are met, based solely on valid data recorded after the successful calibration.

(v) For each full or partial operating hour, all valid data points shall be used to calculate the hourly average.

(vi) Except as provided under paragraph (h)(2)(vii) of this section, data recorded during periods of continuous monitoring system breakdown, repair, calibration checks, and zero and span adjustments shall not be included in the data averages computed under this paragraph.

(vii) Owners and operators complying with the requirements of § 60.7(f)(1) or (2) must include any data recorded during periods of monitor breakdown or malfunction in the data averages.

(viii) When specified in an applicable subpart, hourly averages for certain partial operating hours shall not be computed or included in the emission averages (e.g., hours with < 30 minutes of unit operation under § 60.47b(d)).

(ix) Either arithmetic or integrated averaging of all data may be used to calculate the hourly averages. The data may be recorded in reduced or nonreduced form (e.g., ppm pollutant and percent O₂ or ng/J of pollutant).

(3) All excess emissions shall be converted into units of the standard using the applicable conversion procedures specified in the applicable subpart. After conversion into units of the standard, the data may be rounded to the same number of significant digits used in the applicable subpart to specify the emission limit.

(i) After receipt and consideration of written application, the Administrator may approve alternatives to any monitoring procedures or requirements of this part including, but not limited to the following:

(1) Alternative monitoring requirements when installation of a continuous monitoring system or monitoring device specified by this part would not provide accurate measurements due to liquid water or other interferences caused by substances in the effluent gases.

(2) Alternative monitoring requirements when the affected facility is infrequently operated.

(3) Alternative monitoring requirements to accommodate continuous monitoring systems that require additional measurements to correct for stack moisture conditions.

(4) Alternative locations for installing continuous monitoring systems or monitoring devices when the owner or operator can demonstrate that installation at alternate locations will enable accurate and representative measurements.

(5) Alternative methods of converting pollutant concentration measurements to units of the standards.

(6) Alternative procedures for performing daily checks of zero and span drift that do not involve use of span gases or test cells.

(7) Alternatives to the A.S.T.M. test methods or sampling procedures specified by any subpart.

(8) Alternative continuous monitoring systems that do not meet the design or performance requirements in Performance Specification 1, appendix B, but adequately demonstrate a definite and consistent relationship between its measurements and the measurements of opacity by a system complying with the requirements in Performance Specification 1. The Administrator may require that such demonstration be performed for each affected facility.

(9) Alternative monitoring requirements when the effluent from a single affected facility or the combined effluent from two or more affected facilities is released to the atmosphere through more than one point.

(j) An alternative to the relative accuracy (RA) test specified in Performance Specification 2 of appendix B may be requested as follows:

(1) An alternative to the reference method tests for determining RA is available for sources with emission rates demonstrated to be less than 50 percent of the applicable standard. A source owner or operator may petition the Administrator to waive the RA test in Section 8.4 of Performance Specification 2 and substitute the procedures in Section 16.0 if the results of a performance test conducted according to the requirements in § 60.8 of this subpart or other tests performed following the criteria in § 60.8 demonstrate that the emission rate of the pollutant of interest in the units of the applicable standard is less than 50 percent of the applicable standard. For sources subject to standards expressed as control efficiency levels, a source owner or operator may petition the Administrator to waive the RA test and substitute the procedures in Section 16.0 of Performance Specification 2 if the control device exhaust emission rate is less than 50 percent of the level needed to meet the control efficiency requirement. The alternative procedures do not apply if the continuous emission monitoring system is used to determine compliance continuously with the applicable standard. The petition to waive the RA test shall include a detailed description of the procedures to be applied. Included shall be location and procedure for conducting the alternative, the concentration or response levels of the alternative RA materials, and the other equipment checks included in the alternative procedure. The Administrator will review the petition for completeness and applicability. The determination to grant a waiver will depend on the intended use of the CEMS data (e.g., data collection purposes other than NSPS) and may require specifications more stringent than in Performance Specification 2 (e.g., the applicable emission limit is more stringent than NSPS).

(2) The waiver of a CEMS RA test will be reviewed and may be rescinded at such time, following successful completion of the alternative RA procedure, that the CEMS data indicate that the source emissions are approaching the level. The criterion for reviewing the waiver is the collection of CEMS data showing that emissions have exceeded 70 percent of the applicable standard for seven, consecutive, averaging periods as specified by the applicable regulation(s). For sources subject to standards expressed as control efficiency levels, the criterion for reviewing the waiver is the collection of CEMS data showing that exhaust emissions have exceeded 70 percent of the level needed to meet the control efficiency requirement for seven, consecutive, averaging periods as specified by the applicable regulation(s) [e.g., §§ 60.45(g) (2) and (3), 60.73(e), and 60.84(e)]. It is the responsibility of the source operator to maintain records and determine the level of emissions relative to the criterion on the waiver of RA testing. If this criterion is exceeded, the owner or operator must notify the Administrator within 10 days of such occurrence and include a description of the nature and cause of the increasing emissions. The Administrator will review the notification and may rescind the waiver and require the owner or operator to conduct a RA test of the CEMS as specified in Section 8.4 of Performance Specification 2.

Editorial Note

Editorial Note: For Federal Register citations affecting § 60.13, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and at www.govinfo.gov.

§ 60.14 Modification.

(a) Except as provided under paragraphs (e) and (f) of this section, any physical or operational change to an existing facility which results in an increase in the emission rate to the atmosphere of any pollutant to which a standard applies shall be considered a modification within the meaning of section 111 of the Act.

Upon modification, an existing facility shall become an affected facility for each pollutant to which a standard applies and for which there is an increase in the emission rate to the atmosphere.

(b) Emission rate shall be expressed as kg/hr of any pollutant discharged into the atmosphere for which a standard is applicable. The Administrator shall use the following to determine emission rate:

(1) Emission factors as specified in the latest issue of "Compilation of Air Pollutant Emission Factors," EPA Publication No. AP-42, or other emission factors determined by the Administrator to be superior to AP-42 emission factors, in cases where utilization of emission factors demonstrates that the emission level resulting from the physical or operational change will either clearly increase or clearly not increase.

(2) Material balances, continuous monitor data, or manual emission tests in cases where utilization of emission factors as referenced in paragraph (b)(1) of this section does not demonstrate to the Administrator's satisfaction whether the emission level resulting from the physical or operational change will either clearly increase or clearly not increase, or where an owner or operator demonstrates to the Administrator's satisfaction that there are reasonable grounds to dispute the result obtained by the Administrator utilizing emission factors as referenced in paragraph (b)(1) of this section. When the emission rate is based on results from manual emission tests or continuous monitoring systems, the procedures specified in appendix C of this part shall be used to determine whether an increase in emission rate has occurred. Tests shall be conducted under such conditions as the Administrator shall specify to the owner or operator based on representative performance of the facility. At least three valid test runs must be conducted before and at least three after the physical or operational change. All operating parameters which may affect emissions must be held constant to the maximum feasible degree for all test runs.

(c) The addition of an affected facility to a stationary source as an expansion to that source or as a replacement for an existing facility shall not by itself bring within the applicability of this part any other facility within that source.

(d) [Reserved]

(e) The following shall not, by themselves, be considered modifications under this part:

(1) Maintenance, repair, and replacement which the Administrator determines to be routine for a source category, subject to the provisions of paragraph (c) of this section and § 60.15.

(2) An increase in production rate of an existing facility, if that increase can be accomplished without a capital expenditure on that facility.

(3) An increase in the hours of operation.

(4) Use of an alternative fuel or raw material if, prior to the date any standard under this part becomes applicable to that source type, as provided by § 60.1, the existing facility was designed to accommodate that alternative use. A facility shall be considered to be designed to accommodate an alternative fuel or raw material if that use could be accomplished under the facility's construction specifications as amended prior to the change. Conversion to coal required for energy considerations, as specified in section 111(a)(8) of the Act, shall not be considered a modification.

(5) The addition or use of any system or device whose primary function is the reduction of air pollutants, except when an emission control system is removed or is replaced by a system which the Administrator determines to be less environmentally beneficial.

(6) The relocation or change in ownership of an existing facility.

(f) Special provisions set forth under an applicable subpart of this part shall supersede any conflicting provisions of this section.

(g) Within 180 days of the completion of any physical or operational change subject to the control measures specified in paragraph (a) of this section, compliance with all applicable standards must be achieved.

(h) No physical change, or change in the method of operation, at an existing electric utility steam generating unit shall be treated as a modification for the purposes of this section provided that such change does not increase the maximum hourly emissions of any pollutant regulated under this section above the maximum hourly emissions achievable at that unit during the 5 years prior to the change.

(i) Repowering projects that are awarded funding from the Department of Energy as permanent clean coal technology demonstration projects (or similar projects funded by EPA) are exempt from the requirements of this section provided that such change does not increase the maximum hourly emissions of any pollutant regulated under this section above the maximum hourly emissions achievable at that unit during the five years prior to the change.

(j)

(1) Repowering projects that qualify for an extension under section 409(b) of the Clean Air Act are exempt from the requirements of this section, provided that such change does not increase the actual hourly emissions of any pollutant regulated under this section above the actual hourly emissions achievable at that unit during the 5 years prior to the change.

(2) This exemption shall not apply to any new unit that:

(i) Is designated as a replacement for an existing unit;

(ii) Qualifies under section 409(b) of the Clean Air Act for an extension of an emission limitation compliance date under section 405 of the Clean Air Act; and

(iii) Is located at a different site than the existing unit.

(k) The installation, operation, cessation, or removal of a temporary clean coal technology demonstration project is exempt from the requirements of this section. A *temporary clean coal control technology demonstration project*, for the purposes of this section is a clean coal technology demonstration project that is operated for a period of 5 years or less, and which complies with the State implementation plan for the State in which the project is located and other requirements necessary to attain and maintain the national ambient air quality standards during the project and after it is terminated.

(l) The reactivation of a very clean coal-fired electric utility steam generating unit is exempt from the requirements of this section.

§ 60.15 Reconstruction.

- (a) An existing facility, upon reconstruction, becomes an affected facility, irrespective of any change in emission rate.
- (b) "Reconstruction" means the replacement of components of an existing facility to such an extent that:
 - (1) The fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new facility, and
 - (2) It is technologically and economically feasible to meet the applicable standards set forth in this part.
- (c) "Fixed capital cost" means the capital needed to provide all the depreciable components.
- (d) If an owner or operator of an existing facility proposes to replace components, and the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new facility, he shall notify the Administrator of the proposed replacements. The notice must be postmarked 60 days (or as soon as practicable) before construction of the replacements is commenced and must include the following information:
 - (1) Name and address of the owner or operator.
 - (2) The location of the existing facility.
 - (3) A brief description of the existing facility and the components which are to be replaced.
 - (4) A description of the existing air pollution control equipment and the proposed air pollution control equipment.
 - (5) An estimate of the fixed capital cost of the replacements and of constructing a comparable entirely new facility.
 - (6) The estimated life of the existing facility after the replacements.
 - (7) A discussion of any economic or technical limitations the facility may have in complying with the applicable standards of performance after the proposed replacements.
- (e) The Administrator will determine within 30 days of the receipt of the notice required by paragraph (d) of this section and any additional information he may reasonably require, whether the proposed replacement constitutes reconstruction.
- (f) The Administrator's determination under paragraph (e) shall be based on:
 - (1) The fixed capital cost of the replacements in comparison to the fixed capital cost that would be required to construct a comparable entirely new facility;
 - (2) The estimated life of the facility after the replacements compared to the life of a comparable entirely new facility;
 - (3) The extent to which the components being replaced cause or contribute to the emissions from the facility; and
 - (4) Any economic or technical limitations on compliance with applicable standards of performance which are inherent in the proposed replacements.

(g) Individual subparts of this part may include specific provisions which refine and delimit the concept of reconstruction set forth in this section.

§ 60.16 Priority list.

Prioritized Major Source Categories	
<i>Priority Number¹</i>	<i>Source Category</i>
1.	Synthetic Organic Chemical Manufacturing Industry (SOCMI) and Volatile Organic Liquid Storage Vessels and Handling Equipment
	(a) SOCMI unit processes
	(b) Volatile organic liquid (VOL) storage vessels and handling equipment
	(c) SOCMI fugitive sources
	(d) SOCMI secondary sources
2.	Industrial Surface Coating: Cans
3.	Petroleum Refineries: Fugitive Sources
4.	Industrial Surface Coating: Paper
5.	Dry Cleaning
	(a) Perchloroethylene
	(b) Petroleum solvent
6.	Graphic Arts
7.	Polymers and Resins: Acrylic Resins
8.	Mineral Wool (Deleted)
9.	Stationary Internal Combustion Engines
10.	Industrial Surface Coating: Fabric
11.	Industrial-Commercial-Institutional Steam Generating Units.
12.	Incineration: Non-Municipal (Deleted)
13.	Non-Metallic Mineral Processing
14.	Metallic Mineral Processing
15.	Secondary Copper (Deleted)
16.	Phosphate Rock Preparation
17.	Foundries: Steel and Gray Iron
18.	Polymers and Resins: Polyethylene

Prioritized Major Source Categories	
Priority Number ¹	Source Category
19.	Charcoal Production
20.	Synthetic Rubber
	(a) Tire manufacture
	(b) SBR production
21.	Vegetable Oil
22.	Industrial Surface Coating: Metal Coil
23.	Petroleum Transportation and Marketing
24.	By-Product Coke Ovens
25.	Synthetic Fibers
26.	Plywood Manufacture
27.	Industrial Surface Coating: Automobiles
28.	Industrial Surface Coating: Large Appliances
29.	Crude Oil and Natural Gas Production
30.	Secondary Aluminum
31.	Potash (Deleted)
32.	Lightweight Aggregate Industry: Clay, Shale, and Slate ²
33.	Glass
34.	Gypsum
35.	Sodium Carbonate
36.	Secondary Zinc (Deleted)
37.	Polymers and Resins: Phenolic
38.	Polymers and Resins: Urea-Melamine
39.	Ammonia (Deleted)
40.	Polymers and Resins: Polystyrene
41.	Polymers and Resins: ABS-SAN Resins
42.	Fiberglass
43.	Polymers and Resins: Polypropylene

Prioritized Major Source Categories	
Priority Number ¹	Source Category
44.	Textile Processing
45.	Asphalt Processing and Asphalt Roofing Manufacture
46.	Brick and Related Clay Products
47.	Ceramic Clay Manufacturing (Deleted)
48.	Ammonium Nitrate Fertilizer
49.	Castable Refractories (Deleted)
50.	Borax and Boric Acid (Deleted)
51.	Polymers and Resins: Polyester Resins
52.	Ammonium Sulfate
53.	Starch
54.	Perlite
55.	Phosphoric Acid: Thermal Process (Deleted)
56.	Uranium Refining
57.	Animal Feed Defluorination (Deleted)
58.	Urea (for fertilizer and polymers)
59.	Detergent (Deleted)
<i>Other Source Categories</i>	
Lead acid battery manufacture ³	
Organic solvent cleaning ³	
Industrial surface coating: metal furniture ³	
Stationary gas turbines ⁴	
Municipal solid waste landfills ⁴	
¹ Low numbers have highest priority, e.g., No. 1 is high priority, No. 59 is low priority.	
² Formerly titled "Sintering: Clay and Fly Ash".	
³ Minor source category, but included on list since an NSPS is being developed for that source category.	
⁴ Not prioritized, since an NSPS for this major source category has already been promulgated.	

§ 60.17 Incorporations by reference.

(a)

(1) Certain material is incorporated by reference into this part with the approval of the Director of the Federal Register under 5 U.S.C. 552(a) and 1 CFR part 51. To enforce any edition other than that specified in this section, the U.S. Environmental Protection Agency (EPA) must publish a document in the Federal Register and the material must be available to the public. All approved incorporation by reference (IBR) material is available for inspection at the EPA and at the National Archives and Records Administration (NARA). Contact the EPA at: EPA Docket Center, Public Reading Room, EPA WJC West, Room 3334, 1301 Constitution Ave. NW, Washington, DC; phone: (202) 566-1744. For information on the availability of this material at NARA, visit www.archives.gov/federal-register/cfr/ibr-locations or email fr.inspection@nara.gov.

(2) The IBR material may be obtained from the sources in the following paragraphs of this section or from one or more private resellers listed in this paragraph (a)(2). For material that is no longer commercially available, contact: the EPA (see paragraph (a)(1) of this section).

(i) Accuris Standards Store, 321 Inverness Drive, South Englewood, CO 80112; phone: (800) 332-6077; website: <https://store.accuristech.com>.

(ii) American National Standards Institute (ANSI), see paragraph (d) of this section.

(iii) GlobalSpec, 257 Fuller Road, Suite NFE 1100, Albany, NY 12203-3621; phone: (800) 261-2052; website: <https://standards.globalspec.com>.

(iv) Nimonik Document Center, 401 Roland Way, Suite 224, Oakland, CA 94624; phone (650) 591-7600; email: info@document-center.com; website: www.document-center.com.

(v) Techstreet, phone: (855) 999-9870; email: store@techstreet.com; website: www.techstreet.com.

(b) American Gas Association, available through ILI Infodisk, 610 Winters Avenue, Paramus, New Jersey 07652:

(1) American Gas Association Report No. 3: Orifice Metering for Natural Gas and Other Related Hydrocarbon Fluids, Part 1: General Equations and Uncertainty Guidelines (1990), IBR approved for § 60.107a(d).

(2) American Gas Association Report No. 3: Orifice Metering for Natural Gas and Other Related Hydrocarbon Fluids, Part 2: Specification and Installation Requirements (2000), IBR approved for § 60.107a(d).

(3) American Gas Association Report No. 11: Measurement of Natural Gas by Coriolis Meter (2003), IBR approved for § 60.107a(d).

(4) American Gas Association Transmission Measurement Committee Report No. 7: Measurement of Gas by Turbine Meters (Revised February 2006), IBR approved for § 60.107a(d).

(c) American Hospital Association (AHA) Service, Inc., Post Office Box 92683, Chicago, Illinois 60675-2683.

(1) An Ounce of Prevention: Waste Reduction Strategies for Health Care Facilities. American Society for Health Care Environmental Services of the American Hospital Association. Chicago, Illinois. 1993. AHA Catalog No. 057007. ISBN 0-87258-673-5. IBR approved for §§ 60.35e and 60.55c.

(2) [Reserved]

(d) American National Standards Institute (ANSI), 25 West 43rd Street, Fourth Floor, New York, NY 10036-7417; phone: (212) 642-4980; email: info@ansi.org; website: www.ansi.org.

(1) ANSI No. C12.20-2010 American National Standard for Electricity Meters—0.2 and 0.5 Accuracy Classes (Approved August 31, 2010); IBR approved for §§ 60.5535(d); 60.5535a(d); 60.5860b(a).

(2) [Reserved]

(e) American Petroleum Institute (API), 200 Massachusetts Ave. NW, Suite 1100, Washington, DC 20001; phone: (202) 682-8000; website: www.api.org.

(1) API Publication 2517, Evaporation Loss from External Floating Roof Tanks, Second Edition, February 1980, IBR approved for §§ 60.111(i), 60.111a(f), and 60.116b(e).

(2) API Manual of Petroleum Measurement Standards, Chapter 14—Natural Gas Fluids Measurement, Section 1—Collecting and Handling of Natural Gas Samples for Custody Transfer, 7th Edition, May 2016, IBR approved for § 60.4415(a).

(3) API Manual of Petroleum Measurement Standards, Chapter 22—Testing Protocol, Section 2—Differential Pressure Flow Measurement Devices, First Edition, August 2005, IBR approved for § 60.107a(d).

(f) American Public Health Association, 1015 18th Street NW., Washington, DC 20036.

(1) “Standard Methods for the Examination of Water and Wastewater,” 16th edition, 1985. Method 303F: “Determination of Mercury by the Cold Vapor Technique.” Incorporated by reference for appendix A-8 to part 60, Method 29, §§ 9.2.3, 10.3, and 11.1.3.

(2) 2540 G. Total, Fixed, and Volatile Solids in Solid and Semisolid Samples, in Standard Methods for the Examination of Water and Wastewater, 20th Edition, 1998, IBR approved for § 60.154(b).

(g) American Society of Mechanical Engineers (ASME), Two Park Avenue, New York, NY 10016-5990; phone: (800) 843-2763; email: CustomerCare@asme.org; website: www.asme.org.

(1) ASME Interim Supplement 19.5 on Instruments and Apparatus: Application, Part II of Fluid Meters, 6th Edition (1971), IBR approved for §§ 60.58a(h), 60.58b(i), 60.1320(a), and 60.1810(a).

(2) ASME MFC-3M-2004, Measurement of Fluid Flow in Pipes Using Orifice, Nozzle, and Venturi, IBR approved for § 60.107a(d).

(3) ASME/ANSI MFC-4M-1986 (Reaffirmed 2008), Measurement of Gas Flow by Turbine Meters, IBR approved for § 60.107a(d).

(4) ASME/ANSI MFC-5M-1985 (Reaffirmed 2006), Measurement of Liquid Flow in Closed Conduits Using Transit-Time Ultrasonic Flowmeters, IBR approved for § 60.107a(d).

(5) ASME MFC-6M-1998 (Reaffirmed 2005), Measurement of Fluid Flow in Pipes Using Vortex Flowmeters, IBR approved for § 60.107a(d).

(6) ASME/ANSI MFC-7M-1987 (Reaffirmed 2006), Measurement of Gas Flow by Means of Critical Flow Venturi Nozzles, IBR approved for § 60.107a(d).

- (7) ASME/ANSI MFC-9M-1988 (Reaffirmed 2006), Measurement of Liquid Flow in Closed Conduits by Weighing Method, IBR approved for § 60.107a(d).
- (8) ASME MFC-11M-2006, Measurement of Fluid Flow by Means of Coriolis Mass Flowmeters, IBR approved for § 60.107a(d).
- (9) ASME MFC-14M-2003, Measurement of Fluid Flow Using Small Bore Precision Orifice Meters, IBR approved for § 60.107a(d).
- (10) ASME MFC-16-2007, Measurement of Liquid Flow in Closed Conduits with Electromagnetic Flowmeters, IBR approved for § 60.107a(d).
- (11) ASME MFC-18M-2001, Measurement of Fluid Flow Using Variable Area Meters, IBR approved for § 60.107a(d).
- (12) ASME MFC-22-2007, Measurement of Liquid by Turbine Flowmeters, IBR approved for § 60.107a(d).
- (13) ASME PTC 4.1-1964 (Reaffirmed 1991), Power Test Codes: Test Code for Steam Generating Units (with 1968 and 1969 Addenda), IBR approved for §§ 60.46b, 60.58a(h), 60.58b(i), 60.1320(a), and 60.1810(a).
- (14) ASME/ANSI PTC 19.10-1981, Flue and Exhaust Gas Analyses [Part 10, Instruments and Apparatus], Issued August 31, 1981; IBR approved for §§ 60.56c(b); 60.63(f); 60.106(e); 60.104a(d), (h), (i), and (j); 60.105a(b), (d), (f), and (g); 60.106a(a); 60.107a(a), (c), and (d); 60.275(e); 60.275a(e); 60.275b(e); tables 1 and 3 to subpart EEEE; tables 2 and 4 to subpart FFFF; table 2 to subpart JJJJ; §§ 60.285a(f); 60.396(a); 60.614a(b); 60.664a(b); 60.704(b); 60.704a(b); 60.2145(s) and (t); 60.2710(s) and (t); 60.2730(q); 60.4415(a); 60.4900(b); 60.5220(b); tables 1 and 2 to subpart LLLL; tables 2 and 3 to subpart MMMM; §§ 60.5406(c); 60.5406a(c); 60.5406b(c); 60.5407a(g); 60.5407b(g); 60.5413(b); 60.5413a(b) and (d); 60.5413b(d) and (d); 60.5413c(b) and (d).
- (15) ASME PTC 22-2014, Gas Turbines: Performance Test Codes, (Issued December 31, 2014); IBR approved for §§ 60.5580; 60.5580a.
- (16) ASME PTC 46-1996, Performance Test Code on Overall Plant Performance, (Issued October 15, 1997); IBR approved for §§ 60.5580; 60.5580a.
- (17) ASME QRO-1-1994, Standard for the Qualification and Certification of Resource Recovery Facility Operators, IBR approved for §§ 60.54b(a) and (b), 60.56a, 60.1185(a) and (c), and 60.1675(a) and (c).
- (h) ASTM International, 100 Barr Harbor Drive, P.O. Box CB700, West Conshohocken, Pennsylvania 19428-2959; phone: (800) 262-1373; website: www.astm.org.
- (1) ASTM A99-76, Standard Specification for Ferromanganese, IBR approved for § 60.261.
- (2) ASTM A99-82 (Reapproved 1987), Standard Specification for Ferromanganese, IBR approved for § 60.261.
- (3) ASTM A100-69, Standard Specification for Ferrosilicon, IBR approved for § 60.261.
- (4) ASTM A100-74, Standard Specification for Ferrosilicon, IBR approved for § 60.261.
- (5) ASTM A100-93, Standard Specification for Ferrosilicon, IBR approved for § 60.261.

- (6) ASTM A101-73, Standard Specification for Ferrochromium, IBR approved for § 60.261.
- (7) ASTM A101-93, Standard Specification for Ferrochromium, IBR approved for § 60.261.
- (8) ASTM A482-76, Standard Specification for Ferrochromesilicon, IBR approved for § 60.261.
- (9) ASTM A482-93, Standard Specification for Ferrochromesilicon, IBR approved for § 60.261.
- (10) ASTM A483-64, Standard Specification for Silicomanganese, IBR approved for § 60.261.
- (11) ASTM A483-74 (Reapproved 1988), Standard Specification for Silicomanganese, IBR approved for § 60.261.
- (12) ASTM A495-76, Standard Specification for Calcium-Silicon and Calcium Manganese-Silicon, IBR approved for § 60.261.
- (13) ASTM A495-94, Standard Specification for Calcium-Silicon and Calcium Manganese-Silicon, IBR approved for § 60.261.
- (14) ASTM D86-78, Distillation of Petroleum Products, IBR approved for §§ 60.562-2(d), 60.593(d), 60.593a(d), 60.633(h).
- (15) ASTM D86-82, Distillation of Petroleum Products, IBR approved for §§ 60.562-2(d), 60.593(d), 60.593a(d), 60.633(h).
- (16) ASTM D86-90, Distillation of Petroleum Products, IBR approved for §§ 60.562-2(d), 60.593(d), 60.593a(d), 60.633(h).
- (17) ASTM D86-93, Distillation of Petroleum Products, IBR approved for §§ 60.562-2(d), 60.593(d), 60.593a(d), 60.633(h).
- (18) ASTM D86-95, Distillation of Petroleum Products, IBR approved for §§ 60.562-2(d), 60.593(d), 60.593a(d), 60.633(h).
- (19) ASTM D86-96, Distillation of Petroleum Products, approved April 10, 1996; IBR approved for §§ 60.562-2(d), 60.593(d), 60.593a(d); 60.633(h); 60.5401(f); 60.5401a(f); 60.5402b(d); 60.5402c(d).
- (20) ASTM D129-64, Standard Test Method for Sulfur in Petroleum Products (General Bomb Method), IBR approved for §§ 60.106(j) and appendix A-7 to part 60: Method 19, Section 12.5.2.2.3.
- (21) ASTM D129-78, Standard Test Method for Sulfur in Petroleum Products (General Bomb Method), IBR approved for §§ 60.106(j) and appendix A-7 to part 60: Method 19, Section 12.5.2.2.3.
- (22) ASTM D129-95, Standard Test Method for Sulfur in Petroleum Products (General Bomb Method), IBR approved for §§ 60.106(j) and appendix A-7 to part 60: Method 19, Section 12.5.2.2.3.
- (23) ASTM D129-00, Standard Test Method for Sulfur in Petroleum Products (General Bomb Method), IBR approved for § 60.335(b).
- (24) ASTM D129-00 (Reapproved 2005), Standard Test Method for Sulfur in Petroleum Products (General Bomb Method), IBR approved for § 60.4415(a).
- (25) ASTM D240-76, Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter, IBR approved for §§ 60.46(c), 60.296(b), and appendix A-7 to part 60: Method 19, Section 12.5.2.2.3.

- (26) ASTM D240-92, Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter, IBR approved for §§ 60.46(c), 60.296(b), and appendix A-7: Method 19, Section 12.5.2.2.3.
- (27) ASTM D240-02 (Reapproved 2007), Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter, (Approved May 1, 2007), IBR approved for § 60.107a(d).
- (28) ASTM D240-19, Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter, approved November 1, 2019; IBR approved for § 60.485b(g).
- (29) ASTM D270-65, Standard Method of Sampling Petroleum and Petroleum Products, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.2.1.
- (30) ASTM D270-75, Standard Method of Sampling Petroleum and Petroleum Products, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.2.1.
- (31) ASTM D323-82, Test Method for Vapor Pressure of Petroleum Products (Reid Method), IBR approved for §§ 60.111(l), 60.111a(g), 60.111b, and 60.116b(f).
- (32) ASTM D323-94, Test Method for Vapor Pressure of Petroleum Products (Reid Method), IBR approved for §§ 60.111(l), 60.111a(g), 60.111b, and 60.116b(f).
- (33) ASTM D388-77, Standard Specification for Classification of Coals by Rank, IBR approved for §§ 60.41, 60.45(f), 60.41Da, 60.41b, 60.41c, and 60.251.
- (34) ASTM D388-90, Standard Specification for Classification of Coals by Rank, IBR approved for §§ 60.41, 60.45(f), 60.41Da, 60.41b, 60.41c, and 60.251.
- (35) ASTM D388-91, Standard Specification for Classification of Coals by Rank, IBR approved for §§ 60.41, 60.45(f), 60.41Da, 60.41b, 60.41c, and 60.251.
- (36) ASTM D388-95, Standard Specification for Classification of Coals by Rank, IBR approved for §§ 60.41, 60.45(f), 60.41Da, 60.41b, 60.41c, and 60.251.
- (37) ASTM D388-98a, Standard Specification for Classification of Coals by Rank, IBR approved for §§ 60.41, 60.45(f), 60.41Da, 60.41b, 60.41c, and 60.251.
- (38) ASTM D388-99 (Reapproved 2004)^{ε1}(ASTM D388-99R04), Standard Classification of Coals by Rank, (Approved June 1, 2004); IBR approved for §§ 60.41; 60.45(f); 60.41Da; 60.41b; 60.41c; 60.251; 60.5580; 60.5580a.
- (39) ASTM D396-78, Standard Specification for Fuel Oils, IBR approved for §§ 60.41b, 60.41c, 60.111(b), and 60.111a(b).
- (40) ASTM D396-89, Standard Specification for Fuel Oils, IBR approved for §§ 60.41b, 60.41c, 60.111(b), and 60.111a(b).
- (41) ASTM D396-90, Standard Specification for Fuel Oils, IBR approved for §§ 60.41b, 60.41c, 60.111(b), and 60.111a(b).
- (42) ASTM D396-92, Standard Specification for Fuel Oils, IBR approved for §§ 60.41b, 60.41c, 60.111(b), and 60.111a(b).

- (43) ASTM D396-98, Standard Specification for Fuel Oils, (Approved April 10, 1998); IBR approved for §§ 60.41b; 60.41c; 60.111(b); 60.111a(b); 60.5580; 60.5580a.
- (44) ASTM D975-78, Standard Specification for Diesel Fuel Oils, IBR approved for §§ 60.111(b) and 60.111a(b).
- (45) ASTM D975-96, Standard Specification for Diesel Fuel Oils, IBR approved for §§ 60.111(b) and 60.111a(b).
- (46) ASTM D975-98a, Standard Specification for Diesel Fuel Oils, IBR approved for §§ 60.111(b) and 60.111a(b).
- (47) ASTM D975-08a, Standard Specification for Diesel Fuel Oils, (Approved October 1, 2008); IBR approved for §§ 60.41b; 60.41c; 60.5580; 60.5580a.
- (48) ASTM D1072-80, Standard Test Method for Total Sulfur in Fuel Gases, IBR approved for § 60.335(b).
- (49) ASTM D1072-90 (Reapproved 1994), Standard Test Method for Total Sulfur in Fuel Gases, IBR approved for § 60.335(b).
- (50) ASTM D1072-90 (Reapproved 1999), Standard Test Method for Total Sulfur in Fuel Gases, IBR approved for § 60.4415(a).
- (51) ASTM D1137-53, Standard Method for Analysis of Natural Gases and Related Types of Gaseous Mixtures by the Mass Spectrometer, IBR approved for § 60.45(f).
- (52) ASTM D1137-75, Standard Method for Analysis of Natural Gases and Related Types of Gaseous Mixtures by the Mass Spectrometer, IBR approved for § 60.45(f).
- (53) ASTM D1193-77, Standard Specification for Reagent Water, IBR approved for appendix A-3 to part 60: Method 5, Section 7.1.3; Method 5E, Section 7.2.1; Method 5F, Section 7.2.1; appendix A-4 to part 60: Method 6, Section 7.1.1; Method 7, Section 7.1.1; Method 7C, Section 7.1.1; Method 7D, Section 7.1.1; Method 10A, Section 7.1.1; appendix A-5 to part 60: Method 11, Section 7.1.3; Method 12, Section 7.1.3; Method 13A, Section 7.1.2; appendix A-8 to part 60: Method 26, Section 7.1.2; Method 26A, Section 7.1.2; and Method 29, Section 7.2.2.
- (54) ASTM D1193-91, Standard Specification for Reagent Water, IBR approved for appendix A-3 to part 60: Method 5, Section 7.1.3; Method 5E, Section 7.2.1; Method 5F, Section 7.2.1; appendix A-4 to part 60: Method 6, Section 7.1.1; Method 7, Section 7.1.1; Method 7C, Section 7.1.1; Method 7D, Section 7.1.1; Method 10A, Section 7.1.1; appendix A-5 to part 60: Method 11, Section 7.1.3; Method 12, Section 7.1.3; Method 13A, Section 7.1.2; appendix A-8 to part 60: Method 26, Section 7.1.2; Method 26A, Section 7.1.2; and Method 29, Section 7.2.2.
- (55) ASTM D1266-87, Standard Test Method for Sulfur in Petroleum Products (Lamp Method), IBR approved for §§ 60.106(j) and 60.335(b).
- (56) ASTM D1266-91, Standard Test Method for Sulfur in Petroleum Products (Lamp Method), IBR approved for §§ 60.106(j) and 60.335(b).
- (57) ASTM D1266-98, Standard Test Method for Sulfur in Petroleum Products (Lamp Method), IBR approved for §§ 60.106(j) and 60.335(b).

- (58) ASTM D1266-98 (Reapproved 2003)^{ε, 1} Standard Test Method for Sulfur in Petroleum Products (Lamp Method), IBR approved for § 60.4415(a).
- (59) ASTM D1475-60 (Reapproved 1980), Standard Test Method for Density of Paint, Varnish Lacquer, and Related Products, IBR approved for § 60.435(d), appendix A-7 to part 60: Method 24, Section 6.1; and Method 24A, Sections 6.5 and 7.1.
- (60) ASTM D1475-90, Standard Test Method for Density of Paint, Varnish Lacquer, and Related Products, IBR approved for § 60.435(d), appendix A-7 to part 60: Method 24, Section 6.1; and Method 24A, §§ 6.5 and 7.1.
- (61) ASTM D1475-13, Standard Test Method for Density of Liquid Coatings, Inks, and Related Products, Approved November 1, 2013; IBR approved for § 60.393a(f).
- (62) ASTM D1552-83, Standard Test Method for Sulfur in Petroleum Products (High-Temperature Method), IBR approved for §§ 60.106(j), 60.335(b), and appendix A-7 to part 60: Method 19, Section 12.5.2.2.3.
- (63) ASTM D1552-95, Standard Test Method for Sulfur in Petroleum Products (High-Temperature Method), IBR approved for §§ 60.106(j), 60.335(b), and appendix A-7 to part 60: Method 19, Section 12.5.2.2.3.
- (64) ASTM D1552-01, Standard Test Method for Sulfur in Petroleum Products (High-Temperature Method), IBR approved for §§ 60.106(j), 60.335(b), and appendix A-7 to part 60: Method 19, Section 12.5.2.2.3.
- (65) ASTM D1552-03, Standard Test Method for Sulfur in Petroleum Products (High-Temperature Method), IBR approved for § 60.4415(a).
- (66) ASTM D1826-77, Standard Test Method for Calorific Value of Gases in Natural Gas Range by Continuous Recording Calorimeter, IBR approved for §§ 60.45(f), 60.46(c), 60.296(b), and appendix A-7 to part 60: Method 19, Section 12.3.2.4.
- (67) ASTM D1826-94, Standard Test Method for Calorific Value of Gases in Natural Gas Range by Continuous Recording Calorimeter, IBR approved for §§ 60.45(f), 60.46(c), 60.296(b), and appendix A-7 to part 60: Method 19, Section 12.3.2.4.
- (68) ASTM D1826-94 (Reapproved 2003), Standard Test Method for Calorific (Heating) Value of Gases in Natural Gas Range by Continuous Recording Calorimeter, (Approved May 10, 2003), IBR approved for § 60.107a(d).
- (69) ASTM D1835-87, Standard Specification for Liquefied Petroleum (LP) Gases, IBR approved for §§ 60.41Da, 60.41b, and 60.41c.
- (70) ASTM D1835-91, Standard Specification for Liquefied Petroleum (LP) Gases, IBR approved for §§ 60.41Da, 60.41b, and 60.41c.
- (71) ASTM D1835-97, Standard Specification for Liquefied Petroleum (LP) Gases, IBR approved for §§ 60.41Da, 60.41b, and 60.41c.
- (72) ASTM D1835-03a, Standard Specification for Liquefied Petroleum (LP) Gases, IBR approved for §§ 60.41Da, 60.41b, and 60.41c.

- (73) ASTM D1945-64, Standard Method for Analysis of Natural Gas by Gas Chromatography, IBR approved for § 60.45(f).
- (74) ASTM D1945-76, Standard Method for Analysis of Natural Gas by Gas Chromatography, IBR approved for § 60.45(f).
- (75) ASTM D1945-91, Standard Method for Analysis of Natural Gas by Gas Chromatography, IBR approved for § 60.45(f).
- (76) ASTM D1945-96, Standard Method for Analysis of Natural Gas by Gas Chromatography, IBR approved for § 60.45(f).
- (77) ASTM D1945-03 (Reapproved 2010), Standard Method for Analysis of Natural Gas by Gas Chromatography, approved January 1, 2010; IBR approved for §§ 60.107a(d); 60.5413(d); 60.5413a(d); 60.5413b(d); 60.5413c(d).
- (78) ASTM D1945-14 (Reapproved 2019), Standard Test Method for Analysis of Natural Gas by Gas Chromatography, approved December 1, 2019; IBR approved for § 60.485b(g).
- (79) ASTM D1946-77, Standard Method for Analysis of Reformed Gas by Gas Chromatography, IBR approved for §§ 60.18(f), 60.45(f), 60.564(f), 60.614(e), 60.664(e), and 60.704(d).
- (80) ASTM D1946-90 (Reapproved 1994), Standard Method for Analysis of Reformed Gas by Gas Chromatography, IBR approved for §§ 60.18(f), 60.45(f), 60.564(f), 60.614(e), 60.664(e), and 60.704(d).
- (81) ASTM D1946-90 (Reapproved 2006), Standard Method for Analysis of Reformed Gas by Gas Chromatography, (Approved June 1, 2006), IBR approved for § 60.107a(d).
- (82) ASTM D2013-72, Standard Method of Preparing Coal Samples for Analysis, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.1.3.
- (83) ASTM D2013-86, Standard Method of Preparing Coal Samples for Analysis, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.1.3.
- (84) ASTM D2015-77 (Reapproved 1978), Standard Test Method for Gross Calorific Value of Solid Fuel by the Adiabatic Bomb Calorimeter, IBR approved for §§ 60.45(f), 60.46(c), and appendix A-7 to part 60: Method 19, Section 12.5.2.1.3.
- (85) ASTM D2015-96, Standard Test Method for Gross Calorific Value of Solid Fuel by the Adiabatic Bomb Calorimeter, IBR approved for §§ 60.45(f), 60.46(c), and appendix A-7 to part 60: Method 19, Section 12.5.2.1.3.
- (86) ASTM D2016-74, Standard Test Methods for Moisture Content of Wood, IBR approved for appendix A-8 to part 60: Method 28, Section 16.1.1.
- (87) ASTM D2016-83, Standard Test Methods for Moisture Content of Wood, IBR approved for appendix A-8 to part 60: Method 28, Section 16.1.1.
- (88) ASTM D2234-76, Standard Methods for Collection of a Gross Sample of Coal, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.1.1.
- (89) ASTM D2234-96, Standard Methods for Collection of a Gross Sample of Coal, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.1.1.

- (90) ASTM D2234-97b, Standard Methods for Collection of a Gross Sample of Coal, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.1.1.
- (91) ASTM D2234-98, Standard Methods for Collection of a Gross Sample of Coal, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.1.1.
- (92) ASTM D2369-81, Standard Test Method for Volatile Content of Coatings, IBR approved for appendix A-7 to part 60: Method 24, Section 6.2.
- (93) ASTM D2369-87, Standard Test Method for Volatile Content of Coatings, IBR approved for appendix A-7 to part 60: Method 24, Section 6.2.
- (94) ASTM D2369-90, Standard Test Method for Volatile Content of Coatings, IBR approved for appendix A-7 to part 60: Method 24, Section 6.2.
- (95) ASTM D2369-92, Standard Test Method for Volatile Content of Coatings, IBR approved for appendix A-7 to part 60: Method 24, Section 6.2.
- (96) ASTM D2369-93, Standard Test Method for Volatile Content of Coatings, IBR approved for appendix A-7 to part 60: Method 24, Section 6.2.
- (97) ASTM D2369-95, Standard Test Method for Volatile Content of Coatings, IBR approved for appendix A-7 to part 60: Method 24, Section 6.2.
- (98) ASTM D2369-10 (Reapproved 2015)e1, Standard Test Method for Volatile Content of Coatings, (Approved June 1, 2015); IBR approved for appendix A-7 to part 60: Method 24, Section 6.2.
- (99) ASTM D2369-20, Standard Test Method for Volatile Content of Coatings, Approved June 1, 2020; IBR approved for §§ 60.393a(f); 60.723(b); 60.724(a); 60.725(b); 60.723a(b); 60.724a(a); 60.725a(b).
- (100) ASTM D2382-76, Heat of Combustion of Hydrocarbon Fuels by Bomb Calorimeter (High-Precision Method), IBR approved for §§ 60.18(f), 60.485(g), 60.485a(g), 60.564(f), 60.614(e), 60.664(e), and 60.704(d).
- (101) ASTM D2382-88, Heat of Combustion of Hydrocarbon Fuels by Bomb Calorimeter (High-Precision Method), IBR approved for §§ 60.18(f), 60.485(g), 60.485a(g), 60.564(f), 60.614(e), 60.664(e), and 60.704(d).
- (102) ASTM D2504-67, Noncondensable Gases in C3 and Lighter Hydrocarbon Products by Gas Chromatography, IBR approved for §§ 60.485(g) and 60.485a(g).
- (103) ASTM D2504-77, Noncondensable Gases in C3 and Lighter Hydrocarbon Products by Gas Chromatography, IBR approved for §§ 60.485(g) and 60.485a(g).
- (104) ASTM D2504-88 (Reapproved 1993), Noncondensable Gases in C3 and Lighter Hydrocarbon Products by Gas Chromatography, IBR approved for §§ 60.485(g) and 60.485a(g).
- (105) ASTM D2584-68(Reapproved 1985), Standard Test Method for Ignition Loss of Cured Reinforced Resins, IBR approved for § 60.685(c).
- (106) ASTM D2584-94, Standard Test Method for Ignition Loss of Cured Reinforced Resins, IBR approved for § 60.685(c).

- (107) ASTM D2597-94 (Reapproved 1999), Standard Test Method for Analysis of Demethanized Hydrocarbon Liquid Mixtures Containing Nitrogen and Carbon Dioxide by Gas Chromatography, IBR approved for § 60.335(b).
- (108) ASTM D2622-87, Standard Test Method for Sulfur in Petroleum Products by Wavelength Dispersive X-Ray Fluorescence Spectrometry, IBR approved for §§ 60.106(j) and 60.335(b).
- (109) ASTM D2622-94, Standard Test Method for Sulfur in Petroleum Products by Wavelength Dispersive X-Ray Fluorescence Spectrometry, IBR approved for §§ 60.106(j) and 60.335(b).
- (110) ASTM D2622-98, Standard Test Method for Sulfur in Petroleum Products by Wavelength Dispersive X-Ray Fluorescence Spectrometry, IBR approved for §§ 60.106(j) and 60.335(b).
- (111) ASTM D2622-05, Standard Test Method for Sulfur in Petroleum Products by Wavelength Dispersive X-Ray Fluorescence Spectrometry, IBR approved for § 60.4415(a).
- (112) ASTM D2697-22, Standard Test Method for Volume Nonvolatile Matter in Clear or Pigmented Coatings, Approved July 1, 2022; IBR approved for §§ 60.393a(g); 60.723(b); 60.724(a); 60.725(b); 60.723a(b); 60.724a(a); 60.725a(b).
- (113) ASTM D2879-83, Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope, approved 1983; IBR approved for §§ 60.111b(f); 60.116b(e) and (f); 60.485(e); 60.485a(e); 60.5403b(d); 60.5406c(d).
- (114) ASTM D2879-96, Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope, approved 1996; IBR approved for §§ 60.111b(f); 60.116b(e) and (f); 60.485(e); 60.485a(e); 60.5403b(d); 60.5406c(d).
- (115) ASTM D2879-97, Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope, approved 1997; IBR approved for §§ 60.111b(f); 60.116b(e) and (f); 60.485(e); 60.485a(e); 60.5403b(d); 60.5406c(d).
- (116) ASTM D2879-23, Standard Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope, approved December 1, 2019; IBR approved for § 60.485b(e).
- (117) ASTM D2880-78, Standard Specification for Gas Turbine Fuel Oils, IBR approved for §§ 60.111(b), 60.111a(b), and 60.335(d).
- (118) ASTM D2880-96, Standard Specification for Gas Turbine Fuel Oils, IBR approved for §§ 60.111(b), 60.111a(b), and 60.335(d).
- (119) ASTM D2908-74, Standard Practice for Measuring Volatile Organic Matter in Water by Aqueous-Injection Gas Chromatography, IBR approved for § 60.564(j).
- (120) ASTM D2908-91, Standard Practice for Measuring Volatile Organic Matter in Water by Aqueous-Injection Gas Chromatography, IBR approved for § 60.564(j).
- (121) ASTM D2986-71, Standard Method for Evaluation of Air, Assay Media by the Monodisperse DOP (Dioctyl Phthalate) Smoke Test, IBR approved for appendix A-3 to part 60: Method 5, Section 7.1.1; appendix A-5 to part 60: Method 12, Section 7.1.1; and Method 13A, Section 7.1.1.2.

- (122) ASTM D2986-78, Standard Method for Evaluation of Air, Assay Media by the Monodisperse DOP (Diethyl Phthalate) Smoke Test, IBR approved for appendix A-3 to part 60: Method 5, Section 7.1.1; appendix A-5 to part 60: Method 12, Section 7.1.1; and Method 13A, Section 7.1.1.2.
- (123) ASTM D2986-95a, Standard Method for Evaluation of Air, AssaMedia by the Monodisperse DOP (Diethyl Phthalate) Smoke Test, IBR approved for appendix A-3 to part 60: Method 5, Section 7.1.1; appendix A-5 to part 60: Method 12, Section 7.1.1; and Method 13A, Section 7.1.1.2.
- (124) ASTM D3173-73, Standard Test Method for Moisture in the Analysis Sample of Coal and Coke, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.1.3.
- (125) ASTM D3173-87, Standard Test Method for Moisture in the Analysis Sample of Coal and Coke, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.1.3.
- (126) ASTM D3176-74, Standard Method for Ultimate Analysis of Coal and Coke, IBR approved for § 60.45(f)(5)(i) and appendix A-7 to part 60: Method 19, Section 12.3.2.3.
- (127) ASTM D3176-89, Standard Method for Ultimate Analysis of Coal and Coke, IBR approved for § 60.45(f)(5)(i) and appendix A-7 to part 60: Method 19, Section 12.3.2.3.
- (128) ASTM D3177-75, Standard Test Method for Total Sulfur in the Analysis Sample of Coal and Coke, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.1.3.
- (129) ASTM D3177-89, Standard Test Method for Total Sulfur in the Analysis Sample of Coal and Coke, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.1.3.
- (130) ASTM D3178-73 (Reapproved 1979), Standard Test Methods for Carbon and Hydrogen in the Analysis Sample of Coal and Coke, IBR approved for § 60.45(f).
- (131) ASTM D3178-89, Standard Test Methods for Carbon and Hydrogen in the Analysis Sample of Coal and Coke, IBR approved for § 60.45(f).
- (132) ASTM D3246-81, Standard Test Method for Sulfur in Petroleum Gas by Oxidative Microcoulometry, IBR approved for § 60.335(b).
- (133) ASTM D3246-92, Standard Test Method for Sulfur in Petroleum Gas by Oxidative Microcoulometry, IBR approved for § 60.335(b).
- (134) ASTM D3246-96, Standard Test Method for Sulfur in Petroleum Gas by Oxidative Microcoulometry, IBR approved for § 60.335(b).
- (135) ASTM D3246-05, Standard Test Method for Sulfur in Petroleum Gas by Oxidative Microcoulometry, IBR approved for § 60.4415(a)(1).
- (136) ASTM D3270-73T, Standard Test Methods for Analysis for Fluoride Content of the Atmosphere and Plant Tissues (Semiautomated Method), IBR approved for appendix A-5 to part 60: Method 13A, Section 16.1.
- (137) ASTM D3270-80, Standard Test Methods for Analysis for Fluoride Content of the Atmosphere and Plant Tissues (Semiautomated Method), IBR approved for appendix A-5 to part 60: Method 13A, Section 16.1.

- (138) ASTM D3270-91, Standard Test Methods for Analysis for Fluoride Content of the Atmosphere and Plant Tissues (Semiautomated Method), IBR approved for appendix A-5 to part 60: Method 13A, Section 16.1.
- (139) ASTM D3270-95, Standard Test Methods for Analysis for Fluoride Content of the Atmosphere and Plant Tissues (Semiautomated Method), IBR approved for appendix A-5 to part 60: Method 13A, Section 16.1.
- (140) ASTM D3286-85, Standard Test Method for Gross Calorific Value of Coal and Coke by the Isoperibol Bomb Calorimeter, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.1.3.
- (141) ASTM D3286-96, Standard Test Method for Gross Calorific Value of Coal and Coke by the Isoperibol Bomb Calorimeter, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.1.3.
- (142) ASTM D3370-76, Standard Practices for Sampling Water, IBR approved for § 60.564(j).
- (143) ASTM D3370-95a, Standard Practices for Sampling Water, IBR approved for § 60.564(j).
- (144) ASTM D3588-98 (Reapproved 2003), Standard Practice for Calculating Heat Value, Compressibility Factor, and Relative Density of Gaseous Fuels, approved May 10, 2003; IBR approved for §§ 60.107a(d); 60.5413(d); 60.5413a(d); 60.5413b(d); 60.5413c(d).
- (145) ASTM D3699-08, Standard Specification for Kerosine, including Appendix X1, (Approved September 1, 2008); IBR approved for §§ 60.41b; 60.41c; 60.5580; 60.5580a.
- (146) ASTM D3792-79, Standard Test Method for Water Content of Water-Reducible Paints by Direct Injection into a Gas Chromatograph, IBR approved for appendix A-7 to part 60: Method 24, Section 6.3.
- (147) ASTM D3792-91, Standard Test Method for Water Content of Water-Reducible Paints by Direct Injection into a Gas Chromatograph, IBR approved for appendix A-7 to part 60: Method 24, Section 6.3.
- (148) ASTM D4017-81, Standard Test Method for Water in Paints and Paint Materials by the Karl Fischer Titration Method, IBR approved for appendix A-7 to part 60: Method 24, Section 6.4.
- (149) ASTM D4017-90, Standard Test Method for Water in Paints and Paint Materials by the Karl Fischer Titration Method, IBR approved for appendix A-7 to part 60: Method 24, Section 6.4.
- (150) ASTM D4017-96a, Standard Test Method for Water in Paints and Paint Materials by the Karl Fischer Titration Method, IBR approved for appendix A-7 to part 60: Method 24, Section 6.4.
- (151) ASTM D4057-81, Standard Practice for Manual Sampling of Petroleum and Petroleum Products, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.2.3.
- (152) ASTM D4057-95, Standard Practice for Manual Sampling of Petroleum and Petroleum Products, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.2.3.
- (153) ASTM D4057-95 (Reapproved 2000), Standard Practice for Manual Sampling of Petroleum and Petroleum Products, IBR approved for § 60.4415(a).
- (154) ASTM D4084-82, Standard Test Method for Analysis of Hydrogen Sulfide in Gaseous Fuels (Lead Acetate Reaction Rate Method), IBR approved for § 60.334(h).
- (155) ASTM D4084-94, Standard Test Method for Analysis of Hydrogen Sulfide in Gaseous Fuels (Lead Acetate Reaction Rate Method), IBR approved for § 60.334(h).

- (156) ASTM D4084-05, Standard Test Method for Analysis of Hydrogen Sulfide in Gaseous Fuels (Lead Acetate Reaction Rate Method), IBR approved for §§ 60.4360 and 60.4415(a).
- (157) ASTM D4177-95, Standard Practice for Automatic Sampling of Petroleum and Petroleum Products, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.2.1.
- (158) ASTM D4177-95 (Reapproved 2000), Standard Practice for Automatic Sampling of Petroleum and Petroleum Products, IBR approved for § 60.4415(a).
- (159) ASTM D4239-85, Standard Test Methods for Sulfur in the Analysis Sample of Coal and Coke Using High Temperature Tube Furnace Combustion Methods, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.1.3.
- (160) ASTM D4239-94, Standard Test Methods for Sulfur in the Analysis Sample of Coal and Coke Using High Temperature Tube Furnace Combustion Methods, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.1.3.
- (161) ASTM D4239-97, Standard Test Methods for Sulfur in the Analysis Sample of Coal and Coke Using High Temperature Tube Furnace Combustion Methods, IBR approved for appendix A-7 to part 60: Method 19, Section 12.5.2.1.3.
- (162) ASTM D4294-02, Standard Test Method for Sulfur in Petroleum and Petroleum Products by Energy-Dispersive X-Ray Fluorescence Spectrometry, IBR approved for § 60.335(b).
- (163) ASTM D4294-03, Standard Test Method for Sulfur in Petroleum and Petroleum Products by Energy-Dispersive X-Ray Fluorescence Spectrometry, IBR approved for § 60.4415(a).
- (164) ASTM D4442-84, Standard Test Methods for Direct Moisture Content Measurement in Wood and Wood-base Materials, IBR approved for appendix A-8 to part 60: Method 28, Section 16.1.1.
- (165) ASTM D4442-92, Standard Test Methods for Direct Moisture Content Measurement in Wood and Wood-base Materials, IBR approved for appendix A-8 to part 60: Method 28, Section 16.1.1.
- (166) ASTM D4444-92, Standard Test Methods for Use and Calibration of Hand-Held Moisture Meters, IBR approved for appendix A-8 to part 60: Method 28, Section 16.1.1.
- (167) ASTM D4457-85 (Reapproved 1991), Test Method for Determination of Dichloromethane and 1,1,1-Trichloroethane in Paints and Coatings by Direct Injection into a Gas Chromatograph, IBR approved for appendix A-7 to part 60: Method 24, Section 6.5.
- (168) ASTM D4468-85 (Reapproved 2000), Standard Test Method for Total Sulfur in Gaseous Fuels by Hydrogenolysis and Rateometric Colorimetry, IBR approved for §§ 60.335(b) and 60.4415(a).
- (169) ASTM D4468-85 (Reapproved 2006), Standard Test Method for Total Sulfur in Gaseous Fuels by Hydrogenolysis and Rateometric Colorimetry, (Approved June 1, 2006), IBR approved for § 60.107a(e).
- (170) ASTM D4629-02, Standard Test Method for Trace Nitrogen in Liquid Petroleum Hydrocarbons by Syringe/Inlet Oxidative Combustion and Chemiluminescence Detection, IBR approved for §§ 60.49b(e) and 60.335(b).
- (171) ASTM D4809-95, Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter (Precision Method), IBR approved for §§ 60.18(f), 60.485(g), 60.485a(g), 60.564(f), 60.614(d), 60.664(e), and 60.704(d).

- (172) ASTM D4809-06, Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter (Precision Method), (Approved December 1, 2006), IBR approved for § 60.107a(d).
- (173) ASTM D4809-18, Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter (Precision Method), approved July 1, 2018; IBR approved for § 60.485b(g).
- (174) ASTM D4810-88 (Reapproved 1999), Standard Test Method for Hydrogen Sulfide in Natural Gas Using Length of Stain Detector Tubes, IBR approved for §§ 60.4360 and 60.4415(a).
- (175) ASTM D4840-99(2018)e1 Standard Guide for Sample Chain-of-Custody Procedures, approved August 2018; IBR approved for Appendix A-7: Method 23.
- (176) ASTM D4891-89 (Reapproved 2006), Standard Test Method for Heating Value of Gases in Natural Gas Range by Stoichiometric Combustion, approved June 1, 2006; IBR approved for §§ 60.107a(d); 60.5413(d); 60.5413a(d); 60.5413b(d); 60.5413c(d).
- (177) ASTM D5066-91, Standard Test Method for Determination of the Transfer Efficiency Under Production Conditions for Spray Application of Automotive Paints—Weight Basis, Approved June 1, 2017; IBR approved for § 60.393a(h).
- (178) ASTM D5087-02 (Reapproved 2021), Standard Test Method for Determining Amount of Volatile Organic Compound (VOC) Released from Solventborne Automotive Coatings and Available for Removal in a VOC Control Device (Abatement), Approved February 1, 2021; IBR approved for § 60.397a(e); appendix A to subpart MMa.
- (179) ASTM D5287-97 (Reapproved 2002), Standard Practice for Automatic Sampling of Gaseous Fuels, IBR approved for § 60.4415(a).
- (180) ASTM D5403-93, Standard Test Methods for Volatile Content of Radiation Curable Materials, IBR approved for appendix A-7 to part 60: Method 24, Section 6.6.
- (181) ASTM D5453-00, Standard Test Method for Determination of Total Sulfur in Light Hydrocarbons, Motor Fuels and Oils by Ultraviolet Fluorescence, IBR approved for § 60.335(b).
- (182) ASTM D5453-05, Standard Test Method for Determination of Total Sulfur in Light Hydrocarbons, Motor Fuels and Oils by Ultraviolet Fluorescence, IBR approved for § 60.4415(a).
- (183) ASTM D5504-01, Standard Test Method for Determination of Sulfur Compounds in Natural Gas and Gaseous Fuels by Gas Chromatography and Chemiluminescence, IBR approved for §§ 60.334(h) and 60.4360.
- (184) ASTM D5504-08, Standard Test Method for Determination of Sulfur Compounds in Natural Gas and Gaseous Fuels by Gas Chromatography and Chemiluminescence, (Approved June 15, 2008), IBR approved for §§ 60.107a(e) and 60.5413(d).
- (185) ASTM D5623-19, Standard Test Method for Sulfur Compounds in Light Petroleum Liquids by Gas Chromatography and Sulfur Selective Detection, (Approved July 1, 2019); IBR approved for § 60.4415(a).
- (186) ASTM D5762-02, Standard Test Method for Nitrogen in Petroleum and Petroleum Products by Boat-Inlet Chemiluminescence, IBR approved for § 60.335(b).

- (187) ASTM D5865-98, Standard Test Method for Gross Calorific Value of Coal and Coke, IBR approved for §§ 60.45(f) and 60.46(c), and appendix A-7 to part 60: Method 19, Section 12.5.2.1.3.
- (188) ASTM D5865-10, Standard Test Method for Gross Calorific Value of Coal and Coke, (Approved January 1, 2010), IBR approved for §§ 60.45(f), 60.46(c), and appendix A-7 to part 60: Method 19, section 12.5.2.1.3.
- (189) ASTM D5965-02 (Reapproved 2013), Standard Test Methods for Specific Gravity of Coating Powders, Approved June 1, 2013; IBR approved for § 60.393a(f).
- (190) ASTM D6093-97 (Reapproved 2016), Standard Test Method for Percent Volume Nonvolatile Matter in Clear or Pigmented Coatings Using a Helium Gas Pycnometer, Approved December 1, 2016; IBR approved for §§ 60.393a(g); 60.723(b); 60.724(a); 60.725(b); 60.723a(b); 60.724a(a); 60.725a(b).
- (191) ASTM D6216-20, Standard Practice for Opacity Monitor Manufacturers to Certify Conformance with Design and Performance Specifications, approved September 1, 2020; IBR approved for appendix B to part 60.
- (192) ASTM D6228-98, Standard Test Method for Determination of Sulfur Compounds in Natural Gas and Gaseous Fuels by Gas Chromatography and Flame Photometric Detection, IBR approved for § 60.334(h).
- (193) ASTM D6228-98 (Reapproved 2003), Standard Test Method for Determination of Sulfur Compounds in Natural Gas and Gaseous Fuels by Gas Chromatography and Flame Photometric Detection, IBR approved for §§ 60.4360 and 60.4415.
- (194) ASTM D6266-00a (Reapproved 2017), Standard Test Method for Determining the Amount of Volatile Organic Compound (VOC) Released From Waterborne Automotive Coatings and Available for Removal in a VOC Control Device (Abatement), Approved July 1, 2017; IBR approved for § 60.397a(e).
- (195) ASTM D6348-03, Standard Test Method for Determination of Gaseous Compounds by Extractive Direct Interface Fourier Transform Infrared (FTIR) Spectroscopy, (Approved October 1, 2003), IBR approved for § 60.73a(b), table 7 to subpart IIII, table 2 to subpart JJJJ, and § 60.4245(d).
- (196) ASTM D6348-12e1, Standard Test Method for Determination of Gaseous Compounds by Extractive Direct Interface Fourier Transform Infrared (FTIR) Spectroscopy, approved February 1, 2012; IBR approved for § 60.5413c(b).
- (197) ASTM D6366-99, Standard Test Method for Total Trace Nitrogen and Its Derivatives in Liquid Aromatic Hydrocarbons by Oxidative Combustion and Electrochemical Detection, IBR approved for § 60.335(b)(9).
- (198) ASTM D6377-20, Standard Test Method for Determination of Vapor Pressure of Crude Oil: VPCR_x (Expansion Method), (Approved June 1, 2020); IBR approved for § 60.113c.
- (199) ASTM-D6378-22, Standard Test Method for Determination of Vapor Pressure (VPX) of Petroleum Products, Hydrocarbons, and Hydrocarbon-Oxygenate Mixtures (Triple Expansion Method), (Approved July 1, 2022); IBR approved for § 60.113c.

- (200) ASTM D6420-99 (Reapproved 2004), Standard Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography-Mass Spectrometry, (Approved October 1, 2004), IBR approved for § 60.107a(d) and table 2 to subpart JJJ.
- (201) ASTM D6420-18, Standard Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography-Mass Spectrometry, approved November 1, 2018, IBR approved for §§ 60.485(g); 60.485a(g); 60.485b(g); 60.611a; 60.614(b) and (e); 60.614a(b) and (e), 60.664(b) and (e); 60.664a(b) and (f); 60.700(c); 60.704(b) (d), and (h); 60.705(l); 60.704a(b) and (f).
- (202) ASTM D6522-00, Standard Test Method for Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Concentrations in Emissions from Natural Gas-Fired Reciprocating Engines, Combustion Turbines, Boilers, and Process Heaters Using Portable Analyzers, IBR approved for § 60.335(a).
- (203) ASTM D6522-00 (Reapproved 2005), Standard Test Method for Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Concentrations in Emissions from Natural Gas-Fired Reciprocating Engines, Combustion Turbines, Boilers, and Process Heaters Using Portable Analyzers, (Approved October 1, 2005), IBR approved for table 2 to subpart JJJJ, §§ 60.5413(b) and (d), and 60.5413a(b).
- (204) ASTM D6522-11 Standard Test Method for Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Concentrations in Emissions from Natural Gas-Fired Reciprocating Engines, Combustion Turbines, Boilers, and Process Heaters Using Portable Analyzers (Approved December 1, 2011), IBR approved for § 60.37f(a), 60.766(a).
- (205) ASTM D6522-20, Standard Test Method for Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Concentrations in Emissions from Natural Gas-Fired Reciprocating Engines, Combustion Turbines, Boilers, and Process Heaters Using Portable Analyzers, approved June 1, 2020; IBR approved for §§ 60.5413b(b); 60.5413c(b).
- (206) ASTM D6667-01, Standard Test Method for Determination of Total Volatile Sulfur in Gaseous Hydrocarbons and Liquefied Petroleum Gases by Ultraviolet Fluorescence, IBR approved for § 60.335(b).
- (207) ASTM D6667-04, Standard Test Method for Determination of Total Volatile Sulfur in Gaseous Hydrocarbons and Liquefied Petroleum Gases by Ultraviolet Fluorescence, IBR approved for § 60.4415(a).
- (208) ASTM D6751-11b, Standard Specification for Biodiesel Fuel Blend Stock (B100) for Middle Distillate Fuels, including Appendices X1 through X3, (Approved July 15, 2011), IBR approved for §§ 60.41b, 60.41c, 60.5580, and 60.5580a.
- (209) ASTM D6784-02, Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method), IBR approved for § 60.56c(b) and appendix B to part 60: Performance Specification 12A, Section 8.6.2.
- (210) ASTM D6784-02 (Reapproved 2008), Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method), approved April 1, 2008; IBR approved for § 60.56c(b).

- (211) ASTM D6784-16, Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method), approved March 1, 2016; IBR approved for appendix B to part 60.
- (212) ASTM D6911-15 Standard Guide for Packaging and Shipping Environmental Samples for Laboratory Analysis, approved January 15, 2015; IBR approved for Appendix A-7: Method 23; Appendix A-8: Method 30B.
- (213) ASTM D7039-15a, Standard Test Method for Sulfur in Gasoline, Diesel Fuel, Jet Fuel, Kerosine, Biodiesel, Biodiesel Blends, and Gasoline-Ethanol Blends by Monochromatic Wavelength Dispersive X-ray Fluorescence Spectrometry, (Approved July 1, 2015); IBR approved for § 60.4415(a).
- (214) ASTM D7467-10, Standard Specification for Diesel Fuel Oil, Biodiesel Blend (B6 to B20), including Appendices X1 through X3, (Approved August 1, 2010), IBR approved for §§ 60.41b, 60.41c, 60.5580, and 60.5580a.
- (215) ASTM D7520-16, Standard Test Method for Determining the Opacity of a Plume in the Outdoor Ambient Atmosphere, approved April 1, 2016; IBR approved for §§ 60.123(c)(6); 60.123(c)(6)(i); 60.123(c)(6)(ii); 60.123(c)(6)(v); 60.123a(c)(6)(ii); 60.123a(c)(6)(ii)(A); 60.123a(c)(6)(ii)(B); 60.123a(c)(6)(ii)(E); 60.271(k); 60.272(a) and (b); 60.273(c) and (d); 60.274(h); 60.275(e); 60.276(c); 60.271a; 60.272a(a) and (b); 60.273a(c) and (d); 60.274a(h); 60.275a(e); 60.276a(f); 60.271b; 60.272b(a) and (b); 60.273b(c) and (d); 60.274b(h); 60.275b(e); 60.276b(f); 60.374a(d).
- (216) ASTM E168-67, General Techniques of Infrared Quantitative Analysis, IBR approved for §§ 60.485a(d), 60.593(b), 60.593a(b), and 60.632(f).
- (217) ASTM E168-77, General Techniques of Infrared Quantitative Analysis, IBR approved for §§ 60.485a(d), 60.593(b), 60.593a(b), and 60.632(f).
- (218) ASTM E168-92, General Techniques of Infrared Quantitative Analysis, IBR approved for §§ 60.485a(d), 60.593(b), 60.593a(b), 60.632(f), 60.5400, 60.5400a(f).
- (219) ASTM E168-16 (Reapproved 2023), Standard Practices for General Techniques of Infrared Quantitative Analysis, approved January 1, 2023; IBR approved for § 60.485b(d).
- (220) ASTM E169-63, General Techniques of Ultraviolet Quantitative Analysis, IBR approved for §§ 60.485a(d), 60.593(b), 60.593a(b), and 60.632(f) .
- (221) ASTM E169-77, General Techniques of Ultraviolet Quantitative Analysis, IBR approved for §§ 60.485a(d), 60.593(b), and 60.593a(b), 60.632(f).
- (222) ASTM E169-93, General Techniques of Ultraviolet Quantitative Analysis, (Approved May 15, 1993), IBR approved for §§ 60.485a(d), 60.593(b), 60.593a(b), 60.632(f), 60.5400(f), and 60.5400a(f).
- (223) ASTM E169-16 (Reapproved 2022), Standard Practices for General Techniques of Ultraviolet-Visible Quantitative Analysis, approved November 1, 2022; IBR approved for § 60.485b(d).
- (224) ASTM E260-73, General Gas Chromatography Procedures, IBR approved for §§ 60.485a(d), 60.593(b), 60.593a(b), and 60.632(f).
- (225) ASTM E260-91, General Gas Chromatography Procedures, (IBR approved for §§ 60.485a(d), 60.593(b), 60.593a(b), and 60.632(f).

(226) ASTM E260-96, General Gas Chromatography Procedures, approved April 10, 1996; IBR approved for §§ 60.485a(d), 60.593(b), 60.593a(b), 60.632(f), 60.5400(f), 60.5400a(f), 60.5406(b), 60.5406a(b)(3), 60.5400b(a)(2), 60.5401b(a)(2), 60.5406b(b)(3), 60.5400c(a), and 60.5401c(a).

(227) ASTM E260-96 (Reapproved 2019), Standard Practice for Packed Column Gas Chromatography, approved September 1, 2029; IBR approved for § 60.485b(d).

(228) ASTM E617-13, Standard Specification for Laboratory Weights and Precision Mass Standards, approved May 1, 2013, IBR approved for appendix A-3: Methods 4, 5, 5H, 5I, and appendix A-8: Method 29.

(229) ASTM E871-82 (Reapproved 2013), Standard Test Method for Moisture Analysis of Particulate Wood Fuels, (Approved August 15, 2013), IBR approved for appendix A-8: method 28R.

(230) ASTM E1584-11, Standard Test Method for Assay of Nitric Acid, (Approved August 1, 2011), IBR approved for § 60.73a(c).

(231) ASTM E2515-11, Standard Test Method for Determination of Particulate Matter Emissions Collected by a Dilution Tunnel, (Approved November 1, 2011), IBR approved for § 60.534 and § 60.5476.

(232) ASTM E2618-13 Standard Test Method for Measurement of Particulate Matter Emissions and Heating Efficiency of Outdoor Solid Fuel-Fired Hydronic Heating Appliances, (Approved September 1, 2013), IBR approved for § 60.5476.

(233) ASTM E2779-10, Standard Test Method for Determining Particulate Matter Emissions from Pellet Heaters, (Approved October 1, 2010), IBR approved for § 60.534.

(234) ASTM E2780-10, Standard Test Method for Determining Particulate Matter Emissions from Wood Heaters, (Approved October 1, 2010), IBR approved for appendix A: method 28R.

(235) ASTM UOP539-97, Refinery Gas Analysis by Gas Chromatography, (Copyright 1997), IBR approved for § 60.107a(d).

(i) Association of Official Analytical Chemists, 1111 North 19th Street, Suite 210, Arlington, VA 22209; phone: (301) 927-7077; website: <https://www.aoac.org/>.

(1) AOAC Method 9, Official Methods of Analysis of the Association of Official Analytical Chemists (AOAC), 11th edition, 1970, pp. 11-12, IBR approved for §§ 60.204(b), 60.214(b), 60.224(b), and 60.234(b).

(2) [Reserved]

(j) CSA Group (CSA) (formerly Canadian Standards Association), 178 Rexdale Boulevard, Toronto, Ontario, Canada; phone: (800) 463-6727; website: <https://shop.csa.ca>.

(1) CSA B415.1-10, Performance Testing of Solid-fuel-burning Heating Appliances, (March 2010), IBR approved for §§ 60.534; 60.5476.

(2) [Reserved]

(k) U.S. Environmental Protection Agency (EPA), 1200 Pennsylvania Avenue NW, Washington, DC 20460; phone: (202) 272-0167; website: www.epa.gov/aboutepa/forms/contact-epa.

(1) EPA-453/R-08-002, Protocol for Determining the Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Primer-Surfacer and Topcoat Operations, September 2008, Office of Air Quality Planning and Standards (OAQPS); IBR approved for §§ 60.393a(e) and (h); 60.395a(k); 60.397a(e); appendix A to subpart MMA.

(2) EPA-454/B-08-002, Quality Assurance Handbook for Air Pollution Measurement Systems; Volume IV: Meteorological Measurements, Version 2.0 (Final), March 2008; IBR approved for appendix K to this part.

(3) EPA-454/R-98-015, Office of Air Quality Planning and Standards (OAQPS), Fabric Filter Bag Leak Detection Guidance, September 1997; IBR approved for §§ 60.124(f); 60.124a(f); 60.273(e); 60.273a(e); 60.273b(e); 60.373a(b); 60.2145(r); 60.2710(r); 60.4905(b); 60.5225(b). (Available from: <https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=2000D5T6.pdf>).

(4) EPA-600/R-12/531, EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards, May 2012; IBR approved for §§ 60.5413(d); 60.5413a(d); 60.5413b(d); 60.5413c(d).

(5) In EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (Available from: www.epa.gov/hw-sw846/sw-846-compendium):

(i) SW-846-6010D, Inductively Coupled Plasma-Optical Emission Spectrometry, Revision 5, July 2018; IBR approved for appendix A-5 to this part.

(ii) SW-846-6020B, Inductively Coupled Plasma-Mass Spectrometry, Revision 2, July 2014; IBR approved for appendix A-5 to this part.

(l) European Standards (EN), European Committee for Standardization, Management Centre, Avenue Marnix 17, B-1000 Brussels, Belgium; phone: + 32 2 550 08 11; website: <https://www.en-standard.eu>.

(1) DIN EN 303-5:2012E (EN 303-5), Heating boilers—Part 5: Heating boilers for solid fuels, manually and automatically stoked, nominal heat output of up to 500 kW—Terminology, requirements, testing and marking, (October 2012), IBR approved for § 60.5476.

(2) [Reserved]

(m) GPA Midstream Association, 6060 American Plaza, Suite 700, Tulsa, OK 74135; phone: (918) 493-3872; website: www.gpamidstream.org.

(1) GPA Midstream Standard 2140-17 (GPA 2140-17), Liquefied Petroleum Gas Specifications and Test Methods, (Revised 2017), IBR approved for § 60.4415(a).

(2) GPA Midstream Standard 2166-17 (GPA 2166-17), Obtaining Natural Gas Samples for Analysis by Gas Chromatography, (Reaffirmed 2017), IBR approved for § 60.4415(a).

(3) Gas Processors Association Standard 2172-09, Calculation of Gross Heating Value, Relative Density, Compressibility and Theoretical Hydrocarbon Liquid Content for Natural Gas Mixtures for Custody Transfer (2009), IBR approved for § 60.107a(d).

(4) GPA Standard 2174-14 (GPA 2174-14), Obtaining Liquid Hydrocarbon Samples for Analysis by Gas Chromatography, (Revised 2014), IBR approved for § 60.4415(a).

(5) GPA Standard 2261-19 (GPA 2261-19), Analysis for Natural Gas and Similar Gaseous Mixtures by Gas Chromatography, (Revised 2019), IBR approved for § 60.4415(a).

(6) Gas Processors Association Standard 2377-86, Test for Hydrogen Sulfide and Carbon Dioxide in Natural Gas Using Length of Stain Tubes, 1986 Revision, IBR approved for §§ 60.105(b), 60.107a(b), 60.334(h), 60.4360, and 60.4415(a).

(n) International Organization for Standardization (ISO), 1, ch. de la Voie-Creuse, Case postale 56, CH-1211 Geneva 20, Switzerland; phone: + 41 22 749 01 11; website: www.iso.org.

(1) ISO 8178-4: 1996(E), Reciprocating Internal Combustion Engines—Exhaust Emission Measurement—part 4: Test Cycles for Different Engine Applications, IBR approved for § 60.4241(b).

(2) ISO 2314:2009(E), Gas turbines-Acceptance tests, Third edition (December 15, 2009), IBR approved for §§ 60.5580; 60.5580a.

(3) ISO 8316: Measurement of Liquid Flow in Closed Conduits—Method by Collection of the Liquid in a Volumetric Tank (1987-10-01)—First Edition, IBR approved for § 60.107a(d).

(4) ISO 10715:1997(E), Natural gas—Sampling guidelines, (First Edition, June 1, 1997), IBR approved for § 60.4415(a).

(o) National Technical Information Services (NTIS), 5285 Port Royal Road, Springfield, Virginia 22161.

(1) OMB Bulletin No. 93-17: Revised Statistical Definitions for Metropolitan Areas. Office of Management and Budget, June 30, 1993. NTIS No. PB 93-192-664. IBR approved for § 60.31e.

(2) [Reserved]

(p) North American Electric Reliability Corporation, 1325 G Street NW., Suite 600, Washington, DC 20005-3801, <http://www.nerc.com>.

(1) North American Electric Reliability Corporation Reliability Standard EOP-002-3, Capacity and Energy Emergencies, updated November 19, 2012, IBR approved for §§ 60.4211(f) and 60.4243(d). Also available online: http://www.nerc.com/files/EOP-002-3__1.pdf.

(2) [Reserved]

(q) Pacific Lumber Inspection Bureau (formerly West Coast Lumber Inspection Bureau), 1010 South 336th Street #210, Federal Way, WA 98003; phone: (253) 835.3344; website: www.plib.org.

(1) West Coast Lumber Standard Grading Rules No. 16, pages 5-21, 90 and 91, September 3, 1970, revised 1984, IBR approved for appendix A-8 to part 60.

(2) [Reserved]

(r) Technical Association of the Pulp and Paper Industry (TAPPI), 15 Technology Parkway South, Suite 115, Peachtree Corners, GA 30092; phone (800) 332-8686; website: www.tappi.org.

(1) TAPPI Method T 624 cm-11, (Copyright 2011), IBR approved, for §§ 60.285(d) and 60.285a(d).

(2) [Reserved]

(s) Underwriter's Laboratories, Inc. (UL), 333 Pfingsten Road, Northbrook, IL 60062.

(1) UL 103, Sixth Edition revised as of September 3, 1986, Standard for Chimneys, Factory-built, Residential Type and Building Heating Appliance, IBR approved for appendix A-8 to part 60.

(2) [Reserved]

(t) Water Pollution Control Federation (WPCF), 2626 Pennsylvania Avenue NW., Washington, DC 20037.

(1) Method 209A, Total Residue Dried at 103-105 °C, in Standard Methods for the Examination of Water and Wastewater, 15th Edition, 1980, IBR approved for § 60.683(b).

(2) [Reserved]

Editorial Note

Editorial Note: For Federal Register citations affecting § 60.17, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and at www.govinfo.gov.

§ 60.18 General control device and work practice requirements.

(a) *Introduction.*

(1) This section contains requirements for control devices used to comply with applicable subparts of 40 CFR parts 60 and 61. The requirements are placed here for administrative convenience and apply only to facilities covered by subparts referring to this section.

(2) This section also contains requirements for an alternative work practice used to identify leaking equipment. This alternative work practice is placed here for administrative convenience and is available to all subparts in 40 CFR parts 60, 61, 63, and 65 that require monitoring of equipment with a 40 CFR part 60, appendix A-7, and Method 21 monitor.

(b) *Flares.* Paragraphs (c) through (f) apply to flares.

(c)

(1) Flares shall be designed for and operated with no visible emissions as determined by the methods specified in paragraph (f), except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.

(2) Flares shall be operated with a flame present at all times, as determined by the methods specified in paragraph (f).

(3) An owner/operator has the choice of adhering to either the heat content specifications in paragraph (c)(3)(ii) of this section and the maximum tip velocity specifications in paragraph (c)(4) of this section, or adhering to the requirements in paragraph (c)(3)(i) of this section.

(i)

(A) Flares shall be used that have a diameter of 3 inches or greater, are nonassisted, have a hydrogen content of 8.0 percent (by volume), or greater, and are designed for and operated with an exit velocity less than 37.2 m/sec (122 ft/sec) and less than the velocity, $V_{\max}$, as determined by the following equation:

$$V_{\max} = (X_{H_2} - K_1) * K_2$$

Where:

$V_{\max}$ = Maximum permitted velocity, m/sec.

K_1 = Constant, 6.0 volume-percent hydrogen.

K_2 = Constant, 3.9(m/sec)/volume-percent hydrogen.

X_{H_2} = The volume-percent of hydrogen, on a wet basis, as calculated by using the American Society for Testing and Materials (ASTM) Method D1946-77. (Incorporated by reference as specified in § 60.17).

(B) The actual exit velocity of a flare shall be determined by the method specified in paragraph (f)(4) of this section.

(ii) Flares shall be used only with the net heating value of the gas being combusted being 11.2 MJ/scm (300 Btu/scf) or greater if the flare is steam-assisted or air-assisted; or with the net heating value of the gas being combusted being 7.45 MJ/scm (200 Btu/scf) or greater if the flare is nonassisted. The net heating value of the gas being combusted shall be determined by the methods specified in paragraph (f)(3) of this section.

(4)

(i) Steam-assisted and nonassisted flares shall be designed for and operated with an exit velocity, as determined by the methods specified in paragraph (f)(4) of this section, less than 18.3 m/sec (60 ft/sec), except as provided in paragraphs (c)(4) (ii) and (iii) of this section.

(ii) Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the methods specified in paragraph (f)(4), equal to or greater than 18.3 m/sec (60 ft/sec) but less than 122 m/sec (400 ft/sec) are allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1,000 Btu/scf).

(iii) Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the methods specified in paragraph (f)(4), less than the velocity, V_{max} , as determined by the method specified in paragraph (f)(5), and less than 122 m/sec (400 ft/sec) are allowed.

(5) Air-assisted flares shall be designed and operated with an exit velocity less than the velocity, V_{max} , as determined by the method specified in paragraph (f)(6).

(6) Flares used to comply with this section shall be steam-assisted, air-assisted, or nonassisted.

(d) Owners or operators of flares used to comply with the provisions of this subpart shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs. Applicable subparts will provide provisions stating how owners or operators of flares shall monitor these control devices.

(e) Flares used to comply with provisions of this subpart shall be operated at all times when emissions may be vented to them.

(f)

(1) Method 22 of appendix A to this part shall be used to determine the compliance of flares with the visible emission provisions of this subpart. The observation period is 2 hours and shall be used according to Method 22.

(2) The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame.

(3) The net heating value of the gas being combusted in a flare shall be calculated using the following equation:

$$H_T = K \sum_{i=1}^n C_i H_i$$

where:

H_T = Net heating value of the sample, MJ/scm; where the net enthalpy per mole of offgas is based on combustion at 25 °C and 760 mm Hg, but the standard temperature for determining the volume corresponding to one mole is 20 °C;

$$K = \text{Constant}, 1.740 \times 10^{-7} \left(\frac{1}{\text{ppm}} \right) \left(\frac{\text{g mole}}{\text{scm}} \right) \left(\frac{\text{MJ}}{\text{kcal}} \right)$$

where the standard temperature for $\left(\frac{\text{g mole}}{\text{scm}} \right)$ is 20°C;

C_i = Concentration of sample component i in ppm on a wet basis, as measured for organics by Reference Method 18 and measured for hydrogen and carbon monoxide by ASTM D1946-77 or 90 (Reapproved 1994) (Incorporated by reference as specified in § 60.17); and

H_i = Net heat of combustion of sample component i , kcal/g mole at 25 °C and 760 mm Hg. The heats of combustion may be determined using ASTM D2382-76 or 88 or D4809-95 (incorporated by reference as specified in § 60.17) if published values are not available or cannot be calculated.

(4) The actual exit velocity of a flare shall be determined by dividing the volumetric flowrate (in units of standard temperature and pressure), as determined by Reference Methods 2, 2A, 2C, or 2D as appropriate; by the unobstructed (free) cross sectional area of the flare tip.

(5) The maximum permitted velocity, $V_{\max}$, for flares complying with paragraph (c)(4)(iii) shall be determined by the following equation.

$$\log_{10} (V_{\max}) = (H_T + 28.8)/31.7$$

$V_{\max}$ = Maximum permitted velocity, M/sec

28.8 = Constant

31.7 = Constant

H_T = The net heating value as determined in paragraph (f)(3).

(6) The maximum permitted velocity, $V_{\max}$, for air-assisted flares shall be determined by the following equation.

$$V_{\max} = 8.706 + 0.7084 (H_T)$$

$V_{\max}$ = Maximum permitted velocity, m/sec

8.706 = Constant

0.7084 = Constant

H_T = The net heating value as determined in paragraph (f)(3).

(g) *Alternative work practice for monitoring equipment for leaks.* Paragraphs (g), (h), and (i) of this section apply to all equipment for which the applicable subpart requires monitoring with a 40 CFR part 60, appendix A-7, Method 21 monitor, except for closed vent systems, equipment designated as leakless, and equipment identified in the applicable subpart as having no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background. An owner or operator may use an optical gas imaging instrument instead of a 40 CFR part 60, appendix A-7, Method 21 monitor. Requirements in the existing subparts that are specific to the Method 21 instrument do not apply under this section. All other requirements in the applicable subpart that are not addressed in paragraphs (g), (h), and (i) of this section apply to this standard. For example, equipment specification requirements, and non-Method 21 instrument recordkeeping and reporting requirements in the applicable subpart continue to apply. The terms defined in paragraphs (g)(1) through (5) of this section have meanings that are specific to the alternative work practice standard in paragraphs (g), (h), and (i) of this section.

(1) *Applicable subpart* means the subpart in 40 CFR parts 60, 61, 63, or 65 that requires monitoring of equipment with a 40 CFR part 60, appendix A-7, Method 21 monitor.

(2) *Equipment* means pumps, valves, pressure relief valves, compressors, open-ended lines, flanges, connectors, and other equipment covered by the applicable subpart that require monitoring with a 40 CFR part 60, appendix A-7, Method 21 monitor.

(3) *Imaging* means making visible emissions that may otherwise be invisible to the naked eye.

(4) *Optical gas imaging instrument* means an instrument that makes visible emissions that may otherwise be invisible to the naked eye.

(5) *Repair* means that equipment is adjusted, or otherwise altered, in order to eliminate a leak.

(6) *Leak* means:

(i) Any emissions imaged by the optical gas instrument;

(ii) Indications of liquids dripping;

(iii) Indications by a sensor that a seal or barrier fluid system has failed; or

(iv) Screening results using a 40 CFR part 60, appendix A-7, Method 21 monitor that exceed the leak definition in the applicable subpart to which the equipment is subject.

(h) The alternative work practice standard for monitoring equipment for leaks is available to all subparts in 40 CFR parts 60, 61, 63, and 65 that require monitoring of equipment with a 40 CFR part 60, appendix A-7, Method 21 monitor.

(1) An owner or operator of an affected source subject to CFR parts 60, 61, 63, or 65 can choose to comply with the alternative work practice requirements in paragraph (i) of this section instead of using the 40 CFR part 60, appendix A-7, Method 21 monitor to identify leaking equipment. The owner or operator must document the equipment, process units, and facilities for which the alternative work practice will be used to identify leaks.

(2) Any leak detected when following the leak survey procedure in paragraph (i)(3) of this section must be identified for repair as required in the applicable subpart.

(3) If the alternative work practice is used to identify leaks, re-screening after an attempted repair of leaking equipment must be conducted using either the alternative work practice or the 40 CFR part 60, appendix A-7, Method 21 monitor at the leak definition required in the applicable subpart to which the equipment is subject.

(4) The schedule for repair is as required in the applicable subpart.

(5) When this alternative work practice is used for detecting leaking equipment, choose one of the monitoring frequencies listed in Table 1 to subpart A of this part in lieu of the monitoring frequency specified for regulated equipment in the applicable subpart. Reduced monitoring frequencies for good performance are not applicable when using the alternative work practice.

(6) When this alternative work practice is used for detecting leaking equipment the following are not applicable for the equipment being monitored:

- (i) Skip period leak detection and repair;
- (ii) Quality improvement plans; or
- (iii) Complying with standards for allowable percentage of valves and pumps to leak.

(7) When the alternative work practice is used to detect leaking equipment, the regulated equipment in paragraph (h)(1)(i) of this section must also be monitored annually using a 40 CFR part 60, appendix A-7, Method 21 monitor at the leak definition required in the applicable subpart. The owner or operator may choose the specific monitoring period (for example, first quarter) to conduct the annual monitoring. Subsequent monitoring must be conducted every 12 months from the initial period. Owners or operators must keep records of the annual Method 21 screening results, as specified in paragraph (i)(4)(vii) of this section.

(i) An owner or operator of an affected source who chooses to use the alternative work practice must comply with the requirements of paragraphs (i)(1) through (i)(5) of this section.

(1) Instrument Specifications. The optical gas imaging instrument must comply with the requirements in (i)(1)(i) and (i)(1)(ii) of this section.

(i) Provide the operator with an image of the potential leak points for each piece of equipment at both the detection sensitivity level and within the distance used in the daily instrument check described in paragraph (i)(2) of this section. The detection sensitivity level depends upon the frequency at which leak monitoring is to be performed.

(ii) Provide a date and time stamp for video records of every monitoring event.

(2) Daily Instrument Check. On a daily basis, and prior to beginning any leak monitoring work, test the optical gas imaging instrument at the mass flow rate determined in paragraph (i)(2)(i) of this section in accordance with the procedure specified in paragraphs (i)(2)(ii) through (i)(2)(iv) of this section for each camera configuration used during monitoring (for example, different lenses used), unless an alternative method to demonstrate daily instrument checks has been approved in accordance with paragraph (i)(2)(v) of this section.

(i) Calculate the mass flow rate to be used in the daily instrument check by following the procedures in paragraphs (i)(2)(i)(A) and (i)(2)(i)(B) of this section.

(A) For a specified population of equipment to be imaged by the instrument, determine the piece of equipment in contact with the lowest mass fraction of chemicals that are detectable, within the distance to be used in paragraph (i)(2)(iv)(B) of this section, at or below the standard detection sensitivity level.

(B) Multiply the standard detection sensitivity level, corresponding to the selected monitoring frequency in Table 1 of subpart A of this part, by the mass fraction of detectable chemicals from the stream identified in paragraph (i)(2)(i)(A) of this section to determine the mass flow rate to be used in the daily instrument check, using the following equation.

$$E_{dic} = (E_{sds}) \sum_{i=1}^k x_i$$

Where:

E_{dic} = Mass flow rate for the daily instrument check, grams per hour

x_i = Mass fraction of detectable chemical(s) i seen by the optical gas imaging instrument, within the distance to be used in paragraph (i)(2)(iv)(B) of this section, at or below the standard detection sensitivity level, E_{sds} .

E_{sds} = Standard detection sensitivity level from Table 1 to subpart A, grams per hour

k = Total number of detectable chemicals emitted from the leaking equipment and seen by the optical gas imaging instrument.

(ii) Start the optical gas imaging instrument according to the manufacturer's instructions, ensuring that all appropriate settings conform to the manufacturer's instructions.

(iii) Use any gas chosen by the user that can be viewed by the optical gas imaging instrument and that has a purity of no less than 98 percent.

(iv) Establish a mass flow rate by using the following procedures:

(A) Provide a source of gas where it will be in the field of view of the optical gas imaging instrument.

(B) Set up the optical gas imaging instrument at a recorded distance from the outlet or leak orifice of the flow meter that will not be exceeded in the actual performance of the leak survey. Do not exceed the operating parameters of the flow meter.

(C) Open the valve on the flow meter to set a flow rate that will create a mass emission rate equal to the mass rate specified in paragraph (i)(2)(i) of this section while observing the gas flow through the optical gas imaging instrument viewfinder. When an image of the gas emission is seen through the viewfinder at the required emission rate, make a record of the reading on the flow meter.

(v) Repeat the procedures specified in paragraphs (i)(2)(ii) through (i)(2)(iv) of this section for each configuration of the optical gas imaging instrument used during the leak survey.

(vi) To use an alternative method to demonstrate daily instrument checks, apply to the Administrator for approval of the alternative under § 60.13(i).

(3) Leak Survey Procedure. Operate the optical gas imaging instrument to image every regulated piece of equipment selected for this work practice in accordance with the instrument manufacturer's operating parameters. All emissions imaged by the optical gas imaging instrument are considered to be leaks and are subject to repair. All emissions visible to the naked eye are also considered to be leaks and are subject to repair.

(4) Recordkeeping. You must keep the records described in paragraphs (i)(4)(i) through (i)(4)(vii) of this section:

(i) The equipment, processes, and facilities for which the owner or operator chooses to use the alternative work practice.

(ii) The detection sensitivity level selected from Table 1 to subpart A of this part for the optical gas imaging instrument.

(iii) The analysis to determine the piece of equipment in contact with the lowest mass fraction of chemicals that are detectable, as specified in paragraph (i)(2)(i)(A) of this section.

(iv) The technical basis for the mass fraction of detectable chemicals used in the equation in paragraph (i)(2)(i)(B) of this section.

(v) The daily instrument check. Record the distance, per paragraph (i)(2)(iv)(B) of this section, and the flow meter reading, per paragraph (i)(2)(iv)(C) of this section, at which the leak was imaged. Keep a video record of the daily instrument check for each configuration of the optical gas imaging instrument used during the leak survey (for example, the daily instrument check must be conducted for each lens used). The video record must include a time and date stamp for each daily instrument check. The video record must be kept for 5 years.

(vi) Recordkeeping requirements in the applicable subpart. A video record must be used to document the leak survey results. The video record must include a time and date stamp for each monitoring event. A video record can be used to meet the recordkeeping requirements of the applicable subparts if each piece of regulated equipment selected for this work practice can be identified in the video record. The video record must be kept for 5 years.

(vii) The results of the annual Method 21 screening required in paragraph (h)(7) of this section. Records must be kept for all regulated equipment specified in paragraph (h)(1) of this section. Records must identify the equipment screened, the screening value measured by Method 21,

the time and date of the screening, and calibration information required in the existing applicable subpart.

(5) Reporting. Submit the reports required in the applicable subpart. Submit the records of the annual Method 21 screening required in paragraph (h)(7) of this section to the Administrator via e-mail to *CCG-AWP@EPA.GOV*.

§ 60.19 General notification and reporting requirements.

(a) For the purposes of this part, time periods specified in days shall be measured in calendar days, even if the word “calendar” is absent, unless otherwise specified in an applicable requirement.

(b) For the purposes of this part, if an explicit postmark deadline is not specified in an applicable requirement for the submittal of a notification, application, report, or other written communication to the Administrator, the owner or operator shall postmark the submittal on or before the number of days specified in the applicable requirement. For example, if a notification must be submitted 15 days before a particular event is scheduled to take place, the notification shall be postmarked on or before 15 days preceding the event; likewise, if a notification must be submitted 15 days after a particular event takes place, the notification shall be delivered or postmarked on or before 15 days following the end of the event. The use of reliable non-Government mail carriers that provide indications of verifiable delivery of information required to be submitted to the Administrator, similar to the postmark provided by the U.S. Postal Service, or alternative means of delivery, including the use of electronic media, agreed to by the permitting authority, is acceptable.

(c) Notwithstanding time periods or postmark deadlines specified in this part for the submittal of information to the Administrator by an owner or operator, or the review of such information by the Administrator, such time periods or deadlines may be changed by mutual agreement between the owner or operator and the Administrator. Procedures governing the implementation of this provision are specified in paragraph (f) of this section.

(d) If an owner or operator of an affected facility in a State with delegated authority is required to submit periodic reports under this part to the State, and if the State has an established timeline for the submission of periodic reports that is consistent with the reporting frequency(ies) specified for such facility under this part, the owner or operator may change the dates by which periodic reports under this part shall be submitted (without changing the frequency of reporting) to be consistent with the State's schedule by mutual agreement between the owner or operator and the State. The allowance in the previous sentence applies in each State beginning 1 year after the affected facility is required to be in compliance with the applicable subpart in this part. Procedures governing the implementation of this provision are specified in paragraph (f) of this section.

(e) If an owner or operator supervises one or more stationary sources affected by standards set under this part and standards set under part 61, part 63, or both such parts of this chapter, he/she may arrange by mutual agreement between the owner or operator and the Administrator (or the State with an approved permit program) a common schedule on which periodic reports required by each applicable standard shall be submitted throughout the year. The allowance in the previous sentence applies in each State beginning 1 year after the stationary source is required to be in compliance with the applicable subpart in this part, or 1 year after the stationary source is required to be in compliance with the applicable 40 CFR

part 61 or part 63 of this chapter standard, whichever is latest. Procedures governing the implementation of this provision are specified in paragraph (f) of this section.

(f)

(1)

(i) Until an adjustment of a time period or postmark deadline has been approved by the Administrator under paragraphs (f)(2) and (f)(3) of this section, the owner or operator of an affected facility remains strictly subject to the requirements of this part.

(ii) An owner or operator shall request the adjustment provided for in paragraphs (f)(2) and (f)(3) of this section each time he or she wishes to change an applicable time period or postmark deadline specified in this part.

(2) Notwithstanding time periods or postmark deadlines specified in this part for the submittal of information to the Administrator by an owner or operator, or the review of such information by the Administrator, such time periods or deadlines may be changed by mutual agreement between the owner or operator and the Administrator. An owner or operator who wishes to request a change in a time period or postmark deadline for a particular requirement shall request the adjustment in writing as soon as practicable before the subject activity is required to take place. The owner or operator shall include in the request whatever information he or she considers useful to convince the Administrator that an adjustment is warranted.

(3) If, in the Administrator's judgment, an owner or operator's request for an adjustment to a particular time period or postmark deadline is warranted, the Administrator will approve the adjustment. The Administrator will notify the owner or operator in writing of approval or disapproval of the request for an adjustment within 15 calendar days of receiving sufficient information to evaluate the request.

(4) If the Administrator is unable to meet a specified deadline, he or she will notify the owner or operator of any significant delay and inform the owner or operator of the amended schedule.

Table 1 to Subpart A of Part 60—Detection Sensitivity Levels (grams per hour)

Monitoring frequency per subpart ^a	Detection sensitivity level
Bi-Monthly	60
Semi-Quarterly	85
Monthly	100

^a When this alternative work practice is used to identify leaking equipment, the owner or operator must choose one of the monitoring frequencies listed in this table in lieu of the monitoring frequency specified in the applicable subpart. Bi-monthly means every other month. Semi-quarterly means twice per quarter. Monthly means once per month.

Appendix E. 40 CFR Part 60, Subpart LL—Standards of Performance for Metallic Mineral Processing Plants

§60.380 Applicability and designation of affected facility.

(a) The provisions of this subpart are applicable to the following affected facilities in metallic mineral processing plants: Each crusher and screen in open-pit mines; each crusher, screen, bucket elevator, conveyor belt transfer point, thermal dryer, product packaging station, storage bin, enclosed storage area, truck loading station, truck unloading station, railcar loading station, and railcar unloading station at the mill or concentrator with the following exceptions. All facilities located in underground mines are exempted from the provisions of this subpart. At uranium ore processing plants, all facilities subsequent to and including the beneficiation of uranium ore are exempted from the provisions of this subpart.

(b) An affected facility under paragraph (a) of this section that commences construction or modification after August 24, 1982, is subject to the requirements of this part.

§60.381 Definitions.

All terms used in this subpart, but not specifically defined in this section, shall have the meaning given them in the Act and in subpart A of this part.

Bucket elevator means a conveying device for metallic minerals consisting of a head and foot assembly that supports and drives an endless single or double strand chain or belt to which buckets are attached.

Capture system means the equipment used to capture and transport particulate matter generated by one or more affected facilities to a control device.

Control device means the air pollution control equipment used to reduce particulate matter emissions released to the atmosphere from one or more affected facilities at a metallic mineral processing plant.

Conveyor belt transfer point means a point in the conveying operation where the metallic mineral or metallic mineral concentrate is transferred to or from a conveyor belt except where the metallic mineral is being transferred to a stockpile.

Crusher means a machine used to crush any metallic mineral and includes feeders or conveyors located immediately below the crushing surfaces. Crushers include, but are not limited to, the following types: jaw, gyratory, cone, and hammermill.

Enclosed storage area means any area covered by a roof under which metallic minerals are stored prior to further processing or loading.

Metallic mineral concentrate means a material containing metallic compounds in concentrations higher than naturally occurring in ore but requiring additional processing if pure metal is to be isolated. A metallic mineral concentrate contains at least one of the following metals in any of its oxidation states and at a concentration that contributes to the concentrate's commercial value: Aluminum, copper, gold, iron, lead, molybdenum, silver, titanium, tungsten, uranium, zinc, and zirconium. This definition shall not be construed as requiring that material containing metallic compounds be refined to a pure metal in order for the material to be considered a metallic mineral concentrate to be covered by the standards.

Metallic mineral processing plant means any combination of equipment that produces metallic mineral concentrates from ore. Metallic mineral processing commences with the mining of ore and includes all operations either up to and including the loading of wet or dry concentrates or solutions of metallic minerals for transfer to facilities at non-adjacent locations that will subsequently process metallic concentrates into purified metals (or other products), or up to and including all material transfer and storage operations that precede the operations that produce refined metals (or other products) from metallic mineral concentrates at facilities adjacent to the metallic mineral processing plant. This definition shall not be construed as requiring that mining of ore be conducted in order for the

combination of equipment to be considered a metallic mineral processing plant. (See also the definition of *metallic mineral concentrate*.)

Process fugitive emissions means particulate matter emissions from an affected facility that are not collected by a capture system.

Product packaging station means the equipment used to fill containers with metallic compounds or metallic mineral concentrates.

Railcar loading station means that portion of a metallic mineral processing plant where metallic minerals or metallic mineral concentrates are loaded by a conveying system into railcars.

Railcar unloading station means that portion of a metallic mineral processing plant where metallic ore is unloaded from a railcar into a hopper, screen, or crusher.

Screen means a device for separating material according to size by passing undersize material through one or more mesh surfaces (screens) in series and retaining oversize material on the mesh surfaces (screens).

Stack emissions means the particulate matter captured and released to the atmosphere through a stack, chimney, or flue.

Storage bin means a facility for storage (including surge bins and hoppers) of metallic minerals prior to further processing or loading.

Surface moisture means water that is not chemically bound to a metallic mineral or metallic mineral concentrate.

Thermal dryer means a unit in which the surface moisture content of a metallic mineral or a metallic mineral concentrate is reduced by direct or indirect contact with a heated gas stream.

Truck loading station means that portion of a metallic mineral processing plant where metallic minerals or metallic mineral concentrates are loaded by a conveying system into trucks.

Truck unloading station means that portion of a metallic mineral processing plant where metallic ore is unloaded from a truck into a hopper, screen, or crusher.

§60.382 Standard for particulate matter.

(a) On and after the date on which the performance test required to be conducted by §60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from an affected facility any stack emissions that:

- (1) Contain particulate matter in excess of 0.05 grams per dry standard cubic meter (0.05 g/dscm).
- (2) Exhibit greater than 7 percent opacity, unless the stack emissions are discharged from an affected facility using a wet scrubbing emission control device.

(b) On and after the sixtieth day after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from an affected facility any process fugitive emissions that exhibit greater than 10 percent opacity.

§60.383 Reconstruction.

(a) The cost of replacement of ore-contact surfaces on processing equipment shall not be considered in calculating either the “fixed capital cost of the new components” or the “fixed capital cost that would be required to construct a comparable new facility” under §60.15. Ore-contact surfaces are: Crushing surfaces; screen meshes, bars, and plates; conveyor belts; elevator buckets; and pan feeders.

(b) Under §60.15, the “fixed capital cost of the new components” includes the fixed capital cost of all depreciable components (except components specified in paragraph (a) of this section) that are or will be replaced pursuant to all continuous programs of component replacement commenced within any 2-year period following August 24, 1982.

§60.384 Monitoring of operations.

(a) The owner or operator subject to the provisions of this subpart shall install, calibrate, maintain, and operate a monitoring device for the continuous measurement of the change in pressure of the gas stream through the scrubber for any affected facility using a wet scrubbing emission control device. The monitoring device must be certified by the manufacturer to be accurate within ± 250 pascals (± 1 inch water) gauge pressure and must be calibrated on an annual basis in accordance with manufacturer's instructions.

(b) The owner or operator subject to the provisions of this subpart shall install, calibrate, maintain, and operate a monitoring device for the continuous measurement of the scrubbing liquid flow rate to a wet scrubber for any affected facility using any type of wet scrubbing emission control device. The monitoring device must be certified by the manufacturer to be accurate within ± 5 percent of design scrubbing liquid flow rate and must be calibrated on at least an annual basis in accordance with manufacturer's instructions.

§60.385 Recordkeeping and reporting requirements.

(a) The owner or operator subject to the provisions of this subpart shall conduct a performance test and submit to the Administrator a written report of the results of the test as specified in §60.8(a).

(b) During the initial performance test of a wet scrubber, and at least weekly thereafter, the owner or operator shall record the measurements of both the change in pressure of the gas stream across the scrubber and the scrubbing liquid flow rate.

(c) After the initial performance test of a wet scrubber, the owner or operator shall submit semiannual reports to the Administrator of occurrences when the measurements of the scrubber pressure loss (or gain) or liquid flow rate differ by more than ± 30 percent from the average obtained during the most recent performance test.

(d) The reports required under paragraph (c) shall be postmarked within 30 days following the end of the second and fourth calendar quarters.

(e) The requirements of this subsection remain in force until and unless the Agency, in delegating enforcement authority to a State under section 111(c) of the Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such States. In that event, affected sources within the State will be relieved of the obligation to comply with this subsection, provided that they comply with requirements established by the State.

§60.386 Test methods and procedures.

(a) In conducting the performance tests required in §60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in §60.8(b).

(b) The owner or operator shall determine compliance with the particulate matter standards §60.382 as follows:

(1) Method 5 or 17 shall be used to determine the particulate matter concentration. The sample volume for each run shall be at least 1.70 dscm (60 dscf). The sampling probe and filter holder of Method 5 may be operated without heaters if the gas stream being sampled is at ambient temperature. For gas streams above ambient temperature, the Method 5 sampling train shall be operated with a probe and filter temperature slightly above the effluent temperature (up to a maximum filter temperature of 121 °C (250 °F)) in order to prevent water condensation on the filter.

(2) Method 9 and the procedures in §60.11 shall be used to determine opacity from stack emissions and process fugitive emissions. The observer shall read opacity only when emissions are clearly identified as emanating solely from the affected facility being observed. A single visible emission observer may conduct visible emission observations for up to three fugitive, stack, or vent emission points within a 15-second interval. This option is subject to the following limitations:

- (i) No more than three emission points are read concurrently;
- (ii) All three emission points must be within a 70° viewing sector or angle in front of the observer such that the proper sun position can be maintained for all three points; and
- (iii) If an opacity reading for any one of the three emission points is within 5 percent opacity of the application standard, then the observer must stop taking readings for the other two points and continue reading just that single point.

(c) To comply with §60.385(c), the owner or operator shall use the monitoring devices in §60.384(a) and (b) to determine the pressure loss of the gas stream through the scrubber and scrubbing liquid flow rate at any time during each particulate matter run, and the average of the three determinations shall be computed.

Appendix F. 40 CFR Part 60, Subpart OOO—Standards of Performance for Nonmetallic Mineral Processing Plants

§60.670 Applicability and designation of affected facility.

(a)(1) Except as provided in paragraphs (a)(2), (b), (c), and (d) of this section, the provisions of this subpart are applicable to the following affected facilities in fixed or portable nonmetallic mineral processing plants: each crusher, grinding mill, screening operation, bucket elevator, belt conveyor, bagging operation, storage bin, enclosed truck or railcar loading station. Also, crushers and grinding mills at hot mix asphalt facilities that reduce the size of nonmetallic minerals embedded in recycled asphalt pavement and subsequent affected facilities up to, but not including, the first storage silo or bin are subject to the provisions of this subpart.

(2) The provisions of this subpart do not apply to the following operations: All facilities located in underground mines; plants without crushers or grinding mills above ground; and wet material processing operations (as defined in §60.671).

(b) An affected facility that is subject to the provisions of subparts F or I of this part or that follows in the plant process any facility subject to the provisions of subparts F or I of this part is not subject to the provisions of this subpart.

(c) Facilities at the following plants are not subject to the provisions of this subpart:

- (1) Fixed sand and gravel plants and crushed stone plants with capacities, as defined in §60.671, of 23 megagrams per hour (25 tons per hour) or less;
- (2) Portable sand and gravel plants and crushed stone plants with capacities, as defined in §60.671, of 136 megagrams per hour (150 tons per hour) or less; and
- (3) Common clay plants and pumice plants with capacities, as defined in §60.671, of 9 megagrams per hour (10 tons per hour) or less.

(d)(1) When an existing facility is replaced by a piece of equipment of equal or smaller size, as defined in §60.671, having the same function as the existing facility, and there is no increase in the amount of emissions, the new facility is exempt from the provisions of §§60.672, 60.674, and 60.675 except as provided for in paragraph (d)(3) of this section.

(2) An owner or operator complying with paragraph (d)(1) of this section shall submit the information required in §60.676(a).

(3) An owner or operator replacing all existing facilities in a production line with new facilities does not qualify for the exemption described in paragraph (d)(1) of this section and must comply with the provisions of §§60.672, 60.674 and 60.675.

(e) An affected facility under paragraph (a) of this section that commences construction, modification, or reconstruction after August 31, 1983, is subject to the requirements of this part.

(f) Table 1 of this subpart specifies the provisions of subpart A of this part 60 that do not apply to owners and operators of affected facilities subject to this subpart or that apply with certain exceptions.

§60.671 Definitions.

All terms used in this subpart, but not specifically defined in this section, shall have the meaning given them in the Act and in subpart A of this part.

Bagging operation means the mechanical process by which bags are filled with nonmetallic minerals.

Belt conveyor means a conveying device that transports material from one location to another by means of an endless belt that is carried on a series of idlers and routed around a pulley at each end.

Bucket elevator means a conveying device of nonmetallic minerals consisting of a head and foot assembly which supports and drives an endless single or double strand chain or belt to which buckets are attached.

Building means any frame structure with a roof.

Capacity means the cumulative rated capacity of all initial crushers that are part of the plant.

Capture system means the equipment (including enclosures, hoods, ducts, fans, dampers, etc.) used to capture and transport particulate matter generated by one or more affected facilities to a control device.

Control device means the air pollution control equipment used to reduce particulate matter emissions released to the atmosphere from one or more affected facilities at a nonmetallic mineral processing plant.

Conveying system means a device for transporting materials from one piece of equipment or location to another location within a plant. Conveying systems include but are not limited to the following: Feeders, belt conveyors, bucket elevators and pneumatic systems.

Crush or Crushing means to reduce the size of nonmetallic mineral material by means of physical impaction of the crusher or grinding mill upon the material.

Crusher means a machine used to crush any nonmetallic minerals, and includes, but is not limited to, the following types: Jaw, gyratory, cone, roll, rod mill, hammermill, and impactor.

Enclosed truck or railcar loading station means that portion of a nonmetallic mineral processing plant where nonmetallic minerals are loaded by an enclosed conveying system into enclosed trucks or railcars.

Fixed plant means any nonmetallic mineral processing plant at which the processing equipment specified in §60.670(a) is attached by a cable, chain, turnbuckle, bolt or other means (except electrical connections) to any anchor, slab, or structure including bedrock.

Fugitive emission means particulate matter that is not collected by a capture system and is released to the atmosphere at the point of generation.

Grinding mill means a machine used for the wet or dry fine crushing of any nonmetallic mineral. Grinding mills include, but are not limited to, the following types: Hammer, roller, rod, pebble and ball, and fluid energy. The grinding mill includes the air conveying system, air separator, or air classifier, where such systems are used.

Initial crusher means any crusher into which nonmetallic minerals can be fed without prior crushing in the plant.

Nonmetallic mineral means any of the following minerals or any mixture of which the majority is any of the following minerals:

- (1) Crushed and Broken Stone, including Limestone, Dolomite, Granite, Traprock, Sandstone, Quartz, Quartzite, Marl, Marble, Slate, Shale, Oil Shale, and Shell.
- (2) Sand and Gravel.

- (3) Clay including Kaolin, Fireclay, Bentonite, Fuller's Earth, Ball Clay, and Common Clay.
- (4) Rock Salt.
- (5) Gypsum (natural or synthetic).
- (6) Sodium Compounds, including Sodium Carbonate, Sodium Chloride, and Sodium Sulfate.
- (7) Pumice.
- (8) Gilsonite.
- (9) Talc and Pyrophyllite.
- (10) Boron, including Borax, Kernite, and Colemanite.
- (11) Barite.
- (12) Fluorspar.
- (13) Feldspar.
- (14) Diatomite.
- (15) Perlite.
- (16) Vermiculite.
- (17) Mica.
- (18) Kyanite, including Andalusite, Sillimanite, Topaz, and Dumortierite.

Nonmetallic mineral processing plant means any combination of equipment that is used to crush or grind any nonmetallic mineral wherever located, including lime plants, power plants, steel mills, asphalt concrete plants, portland cement plants, or any other facility processing nonmetallic minerals except as provided in §60.670 (b) and (c).

Portable plant means any nonmetallic mineral processing plant that is mounted on any chassis or skids and may be moved by the application of a lifting or pulling force. In addition, there shall be no cable, chain, turnbuckle, bolt or other means (except electrical connections) by which any piece of equipment is attached or clamped to any anchor, slab, or structure, including bedrock that must be removed prior to the application of a lifting or pulling force for the purpose of transporting the unit.

Production line means all affected facilities (crushers, grinding mills, screening operations, bucket elevators, belt conveyors, bagging operations, storage bins, and enclosed truck and railcar loading stations) which are directly connected or are connected together by a conveying system.

Saturated material means, for purposes of this subpart, mineral material with sufficient surface moisture such that particulate matter emissions are not generated from processing of the material through screening operations, bucket elevators and belt conveyors. Material that is wetted solely by wet suppression systems is not considered to be "saturated" for purposes of this definition.

Screening operation means a device for separating material according to size by passing undersize material through one or more mesh surfaces (screens) in series, and retaining oversize material on the mesh surfaces (screens). Grizzly feeders associated with truck dumping and static (non-moving) grizzlies used anywhere in the nonmetallic mineral processing plant are not considered to be screening operations.

Seasonal shut down means shut down of an affected facility for a period of at least 45 consecutive days due to weather or seasonal market conditions.

Size means the rated capacity in tons per hour of a crusher, grinding mill, bucket elevator, bagging operation, or enclosed truck or railcar loading station; the total surface area of the top screen of a screening operation; the width of a conveyor belt; and the rated capacity in tons of a storage bin.

Stack emission means the particulate matter that is released to the atmosphere from a capture system.

Storage bin means a facility for storage (including surge bins) of nonmetallic minerals prior to further processing or loading.

Transfer point means a point in a conveying operation where the nonmetallic mineral is transferred to or from a belt conveyor except where the nonmetallic mineral is being transferred to a stockpile.

Truck dumping means the unloading of nonmetallic minerals from movable vehicles designed to transport nonmetallic minerals from one location to another. Movable vehicles include but are not limited to: Trucks, front end loaders, skip hoists, and railcars.

Vent means an opening through which there is mechanically induced air flow for the purpose of exhausting from a building air carrying particulate matter emissions from one or more affected facilities.

Wet material processing operation(s) means any of the following:

(1) Wet screening operations (as defined in this section) and subsequent screening operations, bucket elevators and belt conveyors in the production line that process saturated materials (as defined in this section) up to the first crusher, grinding mill or storage bin in the production line; or

(2) Screening operations, bucket elevators and belt conveyors in the production line downstream of wet mining operations (as defined in this section) that process saturated materials (as defined in this section) up to the first crusher, grinding mill or storage bin in the production line.

Wet mining operation means a mining or dredging operation designed and operated to extract any nonmetallic mineral regulated under this subpart from deposits existing at or below the water table, where the nonmetallic mineral is saturated with water.

Wet screening operation means a screening operation at a nonmetallic mineral processing plant which removes unwanted material or which separates marketable fines from the product by a washing process which is designed and operated at all times such that the product is saturated with water.

§60.672 Standard for particulate matter (PM).

(a) Affected facilities must meet the stack emission limits and compliance requirements in Table 2 of this subpart within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under §60.8. The requirements in Table 2 of this subpart apply for affected facilities with capture systems used to capture and transport particulate matter to a control device.

(b) Affected facilities must meet the fugitive emission limits and compliance requirements in Table 3 of this subpart within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under §60.11. The requirements

in Table 3 of this subpart apply for fugitive emissions from affected facilities without capture systems and for fugitive emissions escaping capture systems.

(c) [Reserved]

(d) Truck dumping of nonmetallic minerals into any screening operation, feed hopper, or crusher is exempt from the requirements of this section.

(e) If any transfer point on a conveyor belt or any other affected facility is enclosed in a building, then each enclosed affected facility must comply with the emission limits in paragraphs (a) and (b) of this section, or the building enclosing the affected facility or facilities must comply with the following emission limits:

(1) Fugitive emissions from the building openings (except for vents as defined in §60.671) must not exceed 7 percent opacity; and

(2) Vents (as defined in §60.671) in the building must meet the applicable stack emission limits and compliance requirements in Table 2 of this subpart.

(f) Any baghouse that controls emissions from only an individual, enclosed storage bin is exempt from the applicable stack PM concentration limit (and associated performance testing) in Table 2 of this subpart but must meet the applicable stack opacity limit and compliance requirements in Table 2 of this subpart. This exemption from the stack PM concentration limit does not apply for multiple storage bins with combined stack emissions.

§60.673 Reconstruction.

(a) The cost of replacement of ore-contact surfaces on processing equipment shall not be considered in calculating either the “fixed capital cost of the new components” or the “fixed capital cost that would be required to construct a comparable new facility” under §60.15. Ore-contact surfaces are crushing surfaces; screen meshes, bars, and plates; conveyor belts; and elevator buckets.

(b) Under §60.15, the “fixed capital cost of the new components” includes the fixed capital cost of all depreciable components (except components specified in paragraph (a) of this section) which are or will be replaced pursuant to all continuous programs of component replacement commenced within any 2-year period following August 31, 1983.

§60.674 Monitoring of operations.

(a) The owner or operator of any affected facility subject to the provisions of this subpart which uses a wet scrubber to control emissions shall install, calibrate, maintain and operate the following monitoring devices:

(1) A device for the continuous measurement of the pressure loss of the gas stream through the scrubber. The monitoring device must be certified by the manufacturer to be accurate within ± 250 pascals ± 1 inch water gauge pressure and must be calibrated on an annual basis in accordance with manufacturer's instructions.

(2) A device for the continuous measurement of the scrubbing liquid flow rate to the wet scrubber. The monitoring device must be certified by the manufacturer to be accurate within ± 5 percent of design scrubbing liquid flow rate and must be calibrated on an annual basis in accordance with manufacturer's instructions.

(b) The owner or operator of any affected facility for which construction, modification, or reconstruction commenced on or after April 22, 2008, that uses wet suppression to control emissions from the affected facility must perform monthly periodic inspections to check that water is flowing to discharge spray nozzles in the wet suppression system. The owner or operator must initiate corrective action within 24 hours and complete corrective action as expeditiously as practical if the owner or operator finds that water is not flowing properly during an inspection of the water spray nozzles. The owner or operator must record each inspection of the water spray nozzles, including the date of each inspection and any corrective actions taken, in the logbook required under §60.676(b).

(1) If an affected facility relies on water carryover from upstream water sprays to control fugitive emissions, then that affected facility is exempt from the 5-year repeat testing requirement specified in Table 3 of this subpart provided that the affected facility meets the criteria in paragraphs (b)(1)(i) and (ii) of this section:

(i) The owner or operator of the affected facility conducts periodic inspections of the upstream water spray(s) that are responsible for controlling fugitive emissions from the affected facility. These inspections are conducted according to paragraph (b) of this section and §60.676(b), and

(ii) The owner or operator of the affected facility designates which upstream water spray(s) will be periodically inspected at the time of the initial performance test required under §60.11 of this part and §60.675 of this subpart.

(2) If an affected facility that routinely uses wet suppression water sprays ceases operation of the water sprays or is using a control mechanism to reduce fugitive emissions other than water sprays during the monthly inspection (for example, water from recent rainfall), the logbook entry required under §60.676(b) must specify the control mechanism being used instead of the water sprays.

(c) Except as specified in paragraph (d) or (e) of this section, the owner or operator of any affected facility for which construction, modification, or reconstruction commenced on or after April 22, 2008, that uses a baghouse to control emissions must conduct quarterly 30-minute visible emissions inspections using EPA Method 22 (40 CFR part 60, appendix A-7). The Method 22 (40 CFR part 60, appendix A-7) test shall be conducted while the baghouse is operating. The test is successful if no visible emissions are observed. If any visible emissions are observed, the owner or operator of the affected facility must initiate corrective action within 24 hours to return the baghouse to normal operation. The owner or operator must record each Method 22 (40 CFR part 60, appendix A-7) test, including the date and any corrective actions taken, in the logbook required under §60.676(b). The owner or operator of the affected facility may establish a different baghouse-specific success level for the visible emissions test (other than no visible emissions) by conducting a PM performance test according to §60.675(b) simultaneously with a Method 22 (40 CFR part 60, appendix A-7) to determine what constitutes normal visible emissions from that affected facility's baghouse when it is in compliance with the applicable PM concentration limit in Table 2 of this subpart. The revised visible emissions success level must be incorporated into the permit for the affected facility.

(d) As an alternative to the periodic Method 22 (40 CFR part 60, appendix A-7) visible emissions inspections specified in paragraph (c) of this section, the owner or operator of any affected facility for which construction, modification, or reconstruction commenced on or after April 22, 2008, that uses a baghouse to control emissions may use a bag leak detection system. The owner or operator must install,

operate, and maintain the bag leak detection system according to paragraphs (d)(1) through (3) of this section.

(1) Each bag leak detection system must meet the specifications and requirements in paragraphs (d)(1)(i) through (viii) of this section.

(i) The bag leak detection system must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 1 milligram per dry standard cubic meter (0.00044 grains per actual cubic foot) or less.

(ii) The bag leak detection system sensor must provide output of relative PM loadings. The owner or operator shall continuously record the output from the bag leak detection system using electronic or other means (*e.g.*, using a strip chart recorder or a data logger).

(iii) The bag leak detection system must be equipped with an alarm system that will sound when the system detects an increase in relative particulate loading over the alarm set point established according to paragraph (d)(1)(iv) of this section, and the alarm must be located such that it can be heard by the appropriate plant personnel.

(iv) In the initial adjustment of the bag leak detection system, the owner or operator must establish, at a minimum, the baseline output by adjusting the sensitivity (range) and the averaging period of the device, the alarm set points, and the alarm delay time.

(v) Following initial adjustment, the owner or operator shall not adjust the averaging period, alarm set point, or alarm delay time without approval from the Administrator or delegated authority except as provided in paragraph (d)(1)(vi) of this section.

(vi) Once per quarter, the owner or operator may adjust the sensitivity of the bag leak detection system to account for seasonal effects, including temperature and humidity, according to the procedures identified in the site-specific monitoring plan required by paragraph (d)(2) of this section.

(vii) The owner or operator must install the bag leak detection sensor downstream of the fabric filter.

(viii) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.

(2) The owner or operator of the affected facility must develop and submit to the Administrator or delegated authority for approval of a site-specific monitoring plan for each bag leak detection system. The owner or operator must operate and maintain the bag leak detection system according to the site-specific monitoring plan at all times. Each monitoring plan must describe the items in paragraphs (d)(2)(i) through (vi) of this section.

(i) Installation of the bag leak detection system;

(ii) Initial and periodic adjustment of the bag leak detection system, including how the alarm set-point will be established;

(iii) Operation of the bag leak detection system, including quality assurance procedures;

- (iv) How the bag leak detection system will be maintained, including a routine maintenance schedule and spare parts inventory list;
- (v) How the bag leak detection system output will be recorded and stored; and
- (vi) Corrective action procedures as specified in paragraph (d)(3) of this section. In approving the site-specific monitoring plan, the Administrator or delegated authority may allow owners and operators more than 3 hours to alleviate a specific condition that causes an alarm if the owner or operator identifies in the monitoring plan this specific condition as one that could lead to an alarm, adequately explains why it is not feasible to alleviate this condition within 3 hours of the time the alarm occurs, and demonstrates that the requested time will ensure alleviation of this condition as expeditiously as practicable.

(3) For each bag leak detection system, the owner or operator must initiate procedures to determine the cause of every alarm within 1 hour of the alarm. Except as provided in paragraph (d)(2)(vi) of this section, the owner or operator must alleviate the cause of the alarm within 3 hours of the alarm by taking whatever corrective action(s) are necessary. Corrective actions may include, but are not limited to the following:

- (i) Inspecting the fabric filter for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in PM emissions;
- (ii) Sealing off defective bags or filter media;
- (iii) Replacing defective bags or filter media or otherwise repairing the control device;
- (iv) Sealing off a defective fabric filter compartment;
- (v) Cleaning the bag leak detection system probe or otherwise repairing the bag leak detection system; or
- (vi) Shutting down the process producing the PM emissions.

(e) As an alternative to the periodic Method 22 (40 CFR part 60, appendix A-7) visible emissions inspections specified in paragraph (c) of this section, the owner or operator of any affected facility that is subject to the requirements for processed stone handling operations in the Lime Manufacturing NESHAP (40 CFR part 63, subpart AAAAA) may follow the continuous compliance requirements in row 1 items (i) through (iii) of table 6 to subpart AAAAA of 40 CFR part 63.

§60.675 Test methods and procedures.

(a) In conducting the performance tests required in §60.8, the owner or operator shall use as reference methods and procedures the test methods in appendices A-1 through A-7 of this part or other methods and procedures as specified in this section, except as provided in §60.8(b). Acceptable alternative methods and procedures are given in paragraph (e) of this section.

(b) The owner or operator shall determine compliance with the PM standards in §60.672(a) as follows:

- (1) Except as specified in paragraphs (e)(3) and (4) of this section, Method 5 of appendix A-3 of this part or Method 17 of appendix A-6 of this part shall be used to determine the particulate matter concentration. The sample volume shall be at least 1.70 dscm (60 dscf). For Method 5 (40 CFR part 60, appendix A-3), if the gas stream being sampled is at ambient temperature, the sampling probe and

filter may be operated without heaters. If the gas stream is above ambient temperature, the sampling probe and filter may be operated at a temperature high enough, but no higher than 121 °C (250 °F), to prevent water condensation on the filter.

(2) Method 9 of appendix A-4 of this part and the procedures in §60.11 shall be used to determine opacity.

(c)(1) In determining compliance with the particulate matter standards in §60.672(b) or §60.672(e)(1), the owner or operator shall use Method 9 of appendix A-4 of this part and the procedures in §60.11, with the following additions:

(i) The minimum distance between the observer and the emission source shall be 4.57 meters (15 feet).

(ii) The observer shall, when possible, select a position that minimizes interference from other fugitive emission sources (*e.g.*, road dust). The required observer position relative to the sun (Method 9 of appendix A-4 of this part, Section 2.1) must be followed.

(iii) For affected facilities using wet dust suppression for particulate matter control, a visible mist is sometimes generated by the spray. The water mist must not be confused with particulate matter emissions and is not to be considered a visible emission. When a water mist of this nature is present, the observation of emissions is to be made at a point in the plume where the mist is no longer visible.

(2)(i) In determining compliance with the opacity of stack emissions from any baghouse that controls emissions only from an individual enclosed storage bin under §60.672(f) of this subpart, using Method 9 (40 CFR part 60, appendix A-4), the duration of the Method 9 (40 CFR part 60, appendix A-4) observations shall be 1 hour (ten 6-minute averages).

(ii) The duration of the Method 9 (40 CFR part 60, appendix A-4) observations may be reduced to the duration the affected facility operates (but not less than 30 minutes) for baghouses that control storage bins or enclosed truck or railcar loading stations that operate for less than 1 hour at a time.

(3) When determining compliance with the fugitive emissions standard for any affected facility described under §60.672(b) or §60.672(e)(1) of this subpart, the duration of the Method 9 (40 CFR part 60, appendix A-4) observations must be 30 minutes (five 6-minute averages). Compliance with the applicable fugitive emission limits in Table 3 of this subpart must be based on the average of the five 6-minute averages.

(d) To demonstrate compliance with the fugitive emission limits for buildings specified in §60.672(e)(1), the owner or operator must complete the testing specified in paragraph (d)(1) and (2) of this section. Performance tests must be conducted while all affected facilities inside the building are operating.

(1) If the building encloses any affected facility that commences construction, modification, or reconstruction on or after April 22, 2008, the owner or operator of the affected facility must conduct an initial Method 9 (40 CFR part 60, appendix A-4) performance test according to this section and §60.11.

(2) If the building encloses only affected facilities that commenced construction, modification, or reconstruction before April 22, 2008, and the owner or operator has previously conducted an initial Method 22 (40 CFR part 60, appendix A-7) performance test showing zero visible emissions, then the owner or operator has demonstrated compliance with the opacity limit in §60.672(e)(1). If the owner or operator has not conducted an initial performance test for the building before April 22, 2008, then the owner or operator must conduct an initial Method 9 (40 CFR part 60, appendix A-4) performance test according to this section and §60.11 to show compliance with the opacity limit in §60.672(e)(1).

(e) The owner or operator may use the following as alternatives to the reference methods and procedures specified in this section:

(1) For the method and procedure of paragraph (c) of this section, if emissions from two or more facilities continuously interfere so that the opacity of fugitive emissions from an individual affected facility cannot be read, either of the following procedures may be used:

- (i) Use for the combined emission stream the highest fugitive opacity standard applicable to any of the individual affected facilities contributing to the emissions stream.
- (ii) Separate the emissions so that the opacity of emissions from each affected facility can be read.

(2) A single visible emission observer may conduct visible emission observations for up to three fugitive, stack, or vent emission points within a 15-second interval if the following conditions are met:

- (i) No more than three emission points may be read concurrently.
- (ii) All three emission points must be within a 70 degree viewing sector or angle in front of the observer such that the proper sun position can be maintained for all three points.
- (iii) If an opacity reading for any one of the three emission points equals or exceeds the applicable standard, then the observer must stop taking readings for the other two points and continue reading just that single point.

(3) Method 5I of appendix A-3 of this part may be used to determine the PM concentration as an alternative to the methods specified in paragraph (b)(1) of this section. Method 5I (40 CFR part 60, appendix A-3) may be useful for affected facilities that operate for less than 1 hour at a time such as (but not limited to) storage bins or enclosed truck or railcar loading stations.

(4) In some cases, velocities of exhaust gases from building vents may be too low to measure accurately with the type S pitot tube specified in EPA Method 2 of appendix A-1 of this part [*i.e.*, velocity head <1.3 mm H₂O (0.05 in. H₂O)] and referred to in EPA Method 5 of appendix A-3 of this part. For these conditions, the owner or operator may determine the average gas flow rate produced by the power fans (*e.g.*, from vendor-supplied fan curves) to the building vent. The owner or operator may calculate the average gas velocity at the building vent measurement site using Equation 1 of this section and use this average velocity in determining and maintaining isokinetic sampling rates.

$$v_e = \frac{Q_f}{A_e} \quad (\text{Eq. 1})$$

Where:

V_e = average building vent velocity (feet per minute);

Q_f = average fan flow rate (cubic feet per minute); and

A_e = area of building vent and measurement location (square feet).

(f) To comply with §60.676(d), the owner or operator shall record the measurements as required in §60.676(c) using the monitoring devices in §60.674 (a)(1) and (2) during each particulate matter run and shall determine the averages.

(g) For performance tests involving only Method 9 (40 CFR part 60 appendix A-4) testing, the owner or operator may reduce the 30-day advance notification of performance test in §60.7(a)(6) and 60.8(d) to a 7-day advance notification.

(h) [Reserved]

(i) If the initial performance test date for an affected facility falls during a seasonal shut down (as defined in §60.671 of this subpart) of the affected facility, then with approval from the permitting authority, the owner or operator may postpone the initial performance test until no later than 60 calendar days after resuming operation of the affected facility.

§60.676 Reporting and recordkeeping.

(a) Each owner or operator seeking to comply with §60.670(d) shall submit to the Administrator the following information about the existing facility being replaced and the replacement piece of equipment.

(1) For a crusher, grinding mill, bucket elevator, bagging operation, or enclosed truck or railcar loading station:

(i) The rated capacity in megagrams or tons per hour of the existing facility being replaced and

(ii) The rated capacity in tons per hour of the replacement equipment.

(2) For a screening operation:

(i) The total surface area of the top screen of the existing screening operation being replaced and

(ii) The total surface area of the top screen of the replacement screening operation.

(3) For a conveyor belt:

(i) The width of the existing belt being replaced and

(ii) The width of the replacement conveyor belt.

(4) For a storage bin:

(i) The rated capacity in megagrams or tons of the existing storage bin being replaced and

(ii) The rated capacity in megagrams or tons of replacement storage bins.

(b)(1) Owners or operators of affected facilities (as defined in §§60.670 and 60.671) for which construction, modification, or reconstruction commenced on or after April 22, 2008, must record each periodic inspection required under §60.674(b) or (c), including dates and any corrective actions taken, in a logbook (in written or electronic format). The owner or operator must keep the logbook onsite and make

hard or electronic copies (whichever is requested) of the logbook available to the Administrator upon request.

(2) For each bag leak detection system installed and operated according to §60.674(d), the owner or operator must keep the records specified in paragraphs (b)(2)(i) through (iii) of this section.

(i) Records of the bag leak detection system output;

(ii) Records of bag leak detection system adjustments, including the date and time of the adjustment, the initial bag leak detection system settings, and the final bag leak detection system settings; and

(iii) The date and time of all bag leak detection system alarms, the time that procedures to determine the cause of the alarm were initiated, the cause of the alarm, an explanation of the actions taken, the date and time the cause of the alarm was alleviated, and whether the cause of the alarm was alleviated within 3 hours of the alarm.

(3) The owner or operator of each affected facility demonstrating compliance according to §60.674(e) by following the requirements for processed stone handling operations in the Lime Manufacturing NESHA (40 CFR part 63, subpart AAAAA) must maintain records of visible emissions observations required by §63.7132(a)(3) and (b) of 40 CFR part 63, subpart AAAAA.

(c) During the initial performance test of a wet scrubber, and daily thereafter, the owner or operator shall record the measurements of both the change in pressure of the gas stream across the scrubber and the scrubbing liquid flow rate.

(d) After the initial performance test of a wet scrubber, the owner or operator shall submit semiannual reports to the Administrator of occurrences when the measurements of the scrubber pressure loss and liquid flow rate decrease by more than 30 percent from the average determined during the most recent performance test.

(e) The reports required under paragraph (d) of this section shall be postmarked within 30 days following end of the second and fourth calendar quarters.

(f) The owner or operator of any affected facility shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards set forth in §60.672 of this subpart, including reports of opacity observations made using Method 9 (40 CFR part 60, appendix A-4) to demonstrate compliance with §60.672(b), (e) and (f).

(g) The owner or operator of any wet material processing operation that processes saturated and subsequently processes unsaturated materials, shall submit a report of this change within 30 days following such change. At the time of such change, this screening operation, bucket elevator, or belt conveyor becomes subject to the applicable opacity limit in §60.672(b) and the emission test requirements of §60.11.

(h) The subpart A requirement under §60.7(a)(1) for notification of the date construction or reconstruction commenced is waived for affected facilities under this subpart.

(i) A notification of the actual date of initial startup of each affected facility shall be submitted to the Administrator.

(1) For a combination of affected facilities in a production line that begin actual initial startup on the same day, a single notification of startup may be submitted by the owner or operator to the Administrator. The notification shall be postmarked within 15 days after such date and shall include a description of each affected facility, equipment manufacturer, and serial number of the equipment, if available.

(2) For portable aggregate processing plants, the notification of the actual date of initial startup shall include both the home office and the current address or location of the portable plant.

(j) The requirements of this section remain in force until and unless the Agency, in delegating enforcement authority to a State under section 111(c) of the Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such States. In that event, affected facilities within the State will be relieved of the obligation to comply with the reporting requirements of this section, provided that they comply with requirements established by the State.

(k) Notifications and reports required under this subpart and under subpart A of this part to demonstrate compliance with this subpart need only to be sent to the EPA Region or the State which has been delegated authority according to §60.4(b).

Table 1 to Subpart 000 of Part 60—Exceptions to Applicability of Subpart A to Subpart 000

Subpart A reference	Applies to subpart 000	Explanation
60.4, Address	Yes	Except in §60.4(a) and (b) submittals need not be submitted to both the EPA Region and delegated State authority (§60.676(k)).
60.7, Notification and recordkeeping	Yes	Except in (a)(1) notification of the date construction or reconstruction commenced (§60.676(h)).
		Also, except in (a)(6) performance tests involving only Method 9 (40 CFR part 60, appendix A-4) require a 7-day advance notification instead of 30 days (§60.675(g)).
60.8, Performance tests	Yes	Except in (d) performance tests involving only Method 9 (40 CFR part 60, appendix A-4) require a 7-day advance notification instead of 30 days (§60.675(g)).
60.11, Compliance with standards and maintenance requirements	Yes	Except in (b) under certain conditions (§§60.675(c)), Method 9 (40 CFR part 60, appendix A-4) observation is reduced from 3 hours to 30 minutes for fugitive emissions.
60.18, General control device	No	Flares will not be used to comply with the emission limits.

Table 2 to Subpart 000 of Part 60—Stack Emission Limits for Affected Facilities With Capture Systems

For * * *	The owner or operator must meet a PM limit of * * *	And the owner or operator must meet an opacity limit of * * *	The owner or operator must demonstrate compliance with these limits by conducting * * *

For * * *	The owner or operator must meet a PM limit of * * *	And the owner or operator must meet an opacity limit of * * *	The owner or operator must demonstrate compliance with these limits by conducting * * *
Affected facilities (as defined in §§60.670 and 60.671) that commenced construction, modification, or reconstruction after August 31, 1983 but before April 22, 2008	0.05 g/dscm (0.022 gr/dscf) ^a	7 percent for dry control devices ^b	An initial performance test according to §60.8 of this part and §60.675 of this subpart; and Monitoring of wet scrubber parameters according to §60.674(a) and §60.676(c), (d), and (e).
Affected facilities (as defined in §§60.670 and 60.671) that commence construction, modification, or reconstruction on or after April 22, 2008	0.032 g/dscm (0.014 gr/dscf) ^a	Not applicable (except for individual enclosed storage bins) 7 percent for dry control devices on individual enclosed storage bins	An initial performance test according to §60.8 of this part and §60.675 of this subpart; and Monitoring of wet scrubber parameters according to §60.674(a) and §60.676(c), (d), and (e); and
			Monitoring of baghouses according to §60.674(c), (d), or (e) and §60.676(b).

^aExceptions to the PM limit apply for individual enclosed storage bins and other equipment. See §60.672(d) through (f).

^bThe stack opacity limit and associated opacity testing requirements do not apply for affected facilities using wet scrubbers.

Table 3 to Subpart OOO of Part 60—Fugitive Emission Limits

For * * *	The owner or operator must meet the following fugitive emissions limit for grinding mills, screening operations, bucket elevators, transfer points on belt conveyors, bagging operations, storage bins, enclosed truck or railcar loading stations or from any other affected facility (as defined in §§60.670 and 60.671) * * *	The owner or operator must meet the following fugitive emissions limit for crushers at which a capture system is not used * * *	The owner or operator must demonstrate compliance with these limits by conducting * * *
Affected facilities (as defined in §§60.670 and 60.671) that commenced construction, modification, or reconstruction after August 31, 1983 but before April 22, 2008	10 percent opacity	15 percent opacity	An initial performance test according to §60.11 of this part and §60.675 of this subpart.

Permit Issued: [month day, year]

Permit Expires: [month day, year]

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For * * *	The owner or operator must meet the following fugitive emissions limit for grinding mills, screening operations, bucket elevators, transfer points on belt conveyors, bagging operations, storage bins, enclosed truck or railcar loading stations or from any other affected facility (as defined in §§60.670 and 60.671) * * *	The owner or operator must meet the following fugitive emissions limit for crushers at which a capture system is not used * * *	The owner or operator must demonstrate compliance with these limits by conducting * * *
Affected facilities (as defined in §§60.670 and 60.671) that commence construction, modification, or reconstruction on or after April 22, 2008	7 percent opacity	12 percent opacity	An initial performance test according to §60.11 of this part and §60.675 of this subpart; and Periodic inspections of water sprays according to §60.674(b) and §60.676(b); and
			A repeat performance test according to §60.11 of this part and §60.675 of this subpart within 5 years from the previous performance test for fugitive emissions from affected facilities without water sprays. Affected facilities controlled by water carryover from upstream water sprays that are inspected according to the requirements in §60.674(b) and §60.676(b) are exempt from this 5-year repeat testing requirement.

Appendix G. 40 CFR Part 60, Subpart IIII—Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

§ 60.4200 Am I subject to this subpart?

(a) The provisions of this subpart are applicable to manufacturers, owners, and operators of stationary compression ignition (CI) internal combustion engines (ICE) and other persons as specified in paragraphs (a)(1) through (4) of this section. For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator.

(1) Manufacturers of stationary CI ICE with a displacement of less than 30 liters per cylinder where the model year is:

(i) 2007 or later, for engines that are not fire pump engines;

(ii) The model year listed in Table 3 to this subpart or later model year, for fire pump engines.

(2) Owners and operators of stationary CI ICE that commence construction after July 11, 2005, where the stationary CI ICE are:

(i) Manufactured after April 1, 2006, and are not fire pump engines, or

(ii) Manufactured as a certified National Fire Protection Association (NFPA) fire pump engine after July 1, 2006.

(3) Owners and operators of any stationary CI ICE that are modified or reconstructed after July 11, 2005 and any person that modifies or reconstructs any stationary CI ICE after July 11, 2005.

(4) The provisions of § 60.4208 of this subpart are applicable to all owners and operators of stationary CI ICE that commence construction after July 11, 2005.

(b) The provisions of this subpart are not applicable to stationary CI ICE being tested at a stationary CI ICE test cell/stand.

(c) If you are an owner or operator of an area source subject to this subpart, you are exempt from the obligation to obtain a permit under 40 CFR part 70 or 40 CFR part 71, provided you are not required to obtain a permit under 40 CFR 70.3(a) or 40 CFR 71.3(a) for a reason other than your status as an area source under this subpart. Notwithstanding the previous sentence, you must continue to comply with the provisions of this subpart applicable to area sources.

(d) Stationary CI ICE may be eligible for exemption from the requirements of this subpart as described in 40 CFR part 1068, subpart C, except that owners and operators, as well as manufacturers, may be eligible to request an exemption for national security.

(e) Owners and operators of facilities with CI ICE that are acting as temporary replacement units and that are located at a stationary source for less than 1 year and that have been properly certified as meeting the standards that would be applicable to such engine under the appropriate nonroad engine provisions, are not required to meet any other provisions under this subpart with regard to such engines.

Emission Standards for Manufacturers

§ 60.4201 What emission standards must I meet for non-emergency engines if I am a stationary CI internal combustion engine manufacturer?

- (a) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later non-emergency stationary CI ICE with a maximum engine power less than or equal to 2,237 kilowatt (KW) (3,000 horsepower (HP)) and a displacement of less than 10 liters per cylinder to the certification emission standards for new nonroad CI engines in 40 CFR 1039.101, 1039.102, 1039.104, 1039.105, 1039.107, and 1039.115 and 40 CFR part 1039, appendix I, as applicable, for all pollutants, for the same model year and maximum engine power.
- (b) Stationary CI internal combustion engine manufacturers must certify their 2007 through 2010 model year non-emergency stationary CI ICE with a maximum engine power greater than 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder to the emission standards in table 1 to this subpart, for all pollutants, for the same maximum engine power.
- (c) Stationary CI internal combustion engine manufacturers must certify their 2011 model year and later non-emergency stationary CI ICE with a maximum engine power greater than 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder to the certification emission standards for new nonroad CI engines in 40 CFR 1039.101, 40 CFR 1039.102, 40 CFR 1039.104, 40 CFR 1039.105, 40 CFR 1039.107, and 40 CFR 1039.115, as applicable, for all pollutants, for the same maximum engine power.
- (d) Stationary CI internal combustion engine manufacturers must certify the following non-emergency stationary CI ICE to the appropriate Tier 2 emission standards for new marine CI engines as described in 40 CFR part 1042, appendix I, for all pollutants, for the same displacement and rated power:
 - (1) Their 2007 model year through 2012 non-emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder;
 - (2) Their 2013 model year non-emergency stationary CI ICE with a maximum engine power greater than or equal to 3,700 KW (4,958 HP) and a displacement of greater than or equal to 10 liters per cylinder and less than 15 liters per cylinder; and
 - (3) Their 2013 model year non-emergency stationary CI ICE with a displacement of greater than or equal to 15 liters per cylinder and less than 30 liters per cylinder.
- (e) Stationary CI internal combustion engine manufacturers must certify the following non-emergency stationary CI ICE to the certification emission standards and other requirements for new marine CI engines in 40 CFR 1042.101, 40 CFR 1042.107, 40 CFR 1042.110, 40 CFR 1042.115, 40 CFR 1042.120, and 40 CFR 1042.145, as applicable, for all pollutants, for the same displacement and maximum engine power:
 - (1) Their 2013 model year non-emergency stationary CI ICE with a maximum engine power less than 3,700 KW (4,958 HP) and a displacement of greater than or equal to 10 liters per cylinder and less than 15 liters per cylinder; and
 - (2) Their 2014 model year and later non-emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder.
- (f) Notwithstanding the requirements in paragraphs (a) through (c) of this section, stationary non-emergency CI ICE identified in paragraphs (a) and (c) of this section may be certified to the provisions of 40 CFR part 1042 for commercial engines that are applicable for the engine's model year, displacement,

power density, and maximum engine power if the engines will be used solely in either or both of the following locations:

- (1) Remote areas of Alaska; and
- (2) Marine offshore installations.

(g) Notwithstanding the requirements in paragraphs (a) through (f) of this section, stationary CI internal combustion engine manufacturers are not required to certify reconstructed engines; however manufacturers may elect to do so. The reconstructed engine must be certified to the emission standards specified in paragraphs (a) through (e) of this section that are applicable to the model year, maximum engine power, and displacement of the reconstructed stationary CI ICE.

(h) Stationary CI ICE certified to the standards in 40 CFR part 1039 and equipped with auxiliary emission control devices (AECDs) as specified in 40 CFR 1039.665 must meet the Tier 1 certification emission standards for new nonroad CI engines in 40 CFR part 1039, appendix I, while the AECD is activated during a qualified emergency situation. A qualified emergency situation is defined in 40 CFR 1039.665. When the qualified emergency situation has ended and the AECD is deactivated, the engine must resume meeting the otherwise applicable emission standard specified in this section.

§ 60.4202 What emission standards must I meet for emergency engines if I am a stationary CI internal combustion engine manufacturer?

(a) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later emergency stationary CI ICE with a maximum engine power less than or equal to 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder that are not fire pump engines to the emission standards specified in paragraphs (a)(1) through (2) of this section.

(1) For engines with a maximum engine power less than 37 KW (50 HP):

(i) The Tier 2 emission standards for new nonroad CI engines for the appropriate rated power as described in 40 CFR part 1039, appendix I, for all pollutants and the smoke standards as specified in 40 CFR 1039.105 for model year 2007 engines; and

(ii) The certification emission standards for new nonroad CI engines in 40 CFR 1039.104, 40 CFR 1039.105, 40 CFR 1039.107, 40 CFR 1039.115, and table 2 to this subpart, for 2008 model year and later engines.

(2) For engines with a rated power greater than or equal to 37 KW (50 HP), the Tier 2 or Tier 3 emission standards for new nonroad CI engines for the same rated power as described in 40 CFR part 1039, appendix I, for all pollutants and the smoke standards as specified in 40 CFR 1039.105 beginning in model year 2007.

(b) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later emergency stationary CI ICE with a maximum engine power greater than 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder that are not fire pump engines to the emission standards specified in paragraphs (b)(1) through (2) of this section.

(1) For 2007 through 2010 model years, the emission standards in table 1 to this subpart, for all pollutants, for the same maximum engine power.

(2) For 2011 model year and later, the Tier 2 emission standards as described in 40 CFR part 1039, appendix I, for all pollutants and the smoke standards as specified in 40 CFR 1039.105.

(c) [Reserved]

(d) Beginning with the model years in table 3 to this subpart, stationary CI internal combustion engine manufacturers must certify their fire pump stationary CI ICE to the emission standards in table 4 to this subpart, for all pollutants, for the same model year and NFPA nameplate power.

(e) Stationary CI internal combustion engine manufacturers must certify the following emergency stationary CI ICE that are not fire pump engines to the appropriate Tier 2 emission standards for new marine CI engines as described in 40 CFR part 1042, appendix I, for all pollutants, for the same displacement and rated power:

(1) Their 2007 model year through 2012 emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder;

(2) Their 2013 model year and later emergency stationary CI ICE with a maximum engine power greater than or equal to 3,700 KW (4,958 HP) and a displacement of greater than or equal to 10 liters per cylinder and less than 15 liters per cylinder;

(3) Their 2013 model year emergency stationary CI ICE with a displacement of greater than or equal to 15 liters per cylinder and less than 30 liters per cylinder; and

(4) Their 2014 model year and later emergency stationary CI ICE with a maximum engine power greater than or equal to 2,000 KW (2,682 HP) and a displacement of greater than or equal to 15 liters per cylinder and less than 30 liters per cylinder.

(f) Stationary CI internal combustion engine manufacturers must certify the following emergency stationary CI ICE to the certification emission standards and other requirements applicable to Tier 3 new marine CI engines in 40 CFR 1042.101, 40 CFR 1042.107, 40 CFR 1042.115, 40 CFR 1042.120, and 40 CFR 1042.145, for all pollutants, for the same displacement and maximum engine power:

(1) Their 2013 model year and later emergency stationary CI ICE with a maximum engine power less than 3,700 KW (4,958 HP) and a displacement of greater than or equal to 10 liters per cylinder and less than 15 liters per cylinder; and

(2) Their 2014 model year and later emergency stationary CI ICE with a maximum engine power less than 2,000 KW (2,682 HP) and a displacement of greater than or equal to 15 liters per cylinder and less than 30 liters per cylinder.

(g) Notwithstanding the requirements in paragraphs (a) through (d) of this section, stationary emergency CI ICE identified in paragraphs (a) and (c) of this section may be certified to the provisions of 40 CFR part 1042 for commercial engines that are applicable for the engine's model year, displacement, power density, and maximum engine power if the engines will be used solely in either or both of the locations identified in paragraphs (g)(1) and (2) of this section. Engines that would be subject to the Tier 4 standards in 40 CFR part 1042 that are used solely in either or both of the locations identified in paragraphs (g)(1) and (2) of this section may instead continue to be certified to the appropriate Tier 3 standards in 40 CFR part 1042.

(1) Remote areas of Alaska; and

(2) Marine offshore installations.

(h) Notwithstanding the requirements in paragraphs (a) through (f) of this section, stationary CI internal combustion engine manufacturers are not required to certify reconstructed engines; however manufacturers may elect to do so. The reconstructed engine must be certified to the emission standards specified in paragraphs (a) through (f) of this section that are applicable to the model year, maximum engine power and displacement of the reconstructed emergency stationary CI ICE.

§ 60.4203 How long must my engines meet the emission standards if I am a manufacturer of stationary CI internal combustion engines?

Engines manufactured by stationary CI internal combustion engine manufacturers must meet the emission standards as required in §§ 60.4201 and 60.4202 during the certified emissions life of the engines.

Emission Standards for Owners and Operators

§ 60.4204 What emission standards must I meet for non-emergency engines if I am an owner or operator of a stationary CI internal combustion engine?

(a) Owners and operators of pre-2007 model year non-emergency stationary CI ICE with a displacement of less than 10 liters per cylinder must comply with the emission standards in table 1 to this subpart. Owners and operators of pre-2007 model year non-emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder must comply with the Tier 1 emission standards in 40 CFR part 1042, appendix I.

(b) Owners and operators of 2007 model year and later non-emergency stationary CI ICE with a displacement of less than 30 liters per cylinder must comply with the emission standards for new CI engines in § 60.4201 for their 2007 model year and later stationary CI ICE, as applicable.

(c) Owners and operators of non-emergency stationary CI engines with a displacement of greater than or equal to 30 liters per cylinder must meet the following requirements:

(1) For engines installed prior to January 1, 2012, limit the emissions of NO_x in the stationary CI internal combustion engine exhaust to the following:

(i) 17.0 grams per kilowatt-hour (g/KW-hr) (12.7 grams per horsepower-hr (g/HP-hr)) when maximum engine speed is less than 130 revolutions per minute (rpm);

(ii) $45 \cdot n^{-0.2}$ g/KW-hr ($34 \cdot n^{-0.2}$ g/HP-hr) when maximum engine speed is 130 or more but less than 2,000 rpm, where n is maximum engine speed; and

(iii) 9.8 g/KW-hr (7.3 g/HP-hr) when maximum engine speed is 2,000 rpm or more.

(2) For engines installed on or after January 1, 2012 and before January 1, 2016, limit the emissions of NO_x in the stationary CI internal combustion engine exhaust to the following:

(i) 14.4 g/KW-hr (10.7 g/HP-hr) when maximum engine speed is less than 130 rpm;

(ii) $44 \cdot n^{-0.23}$ g/KW-hr ($33 \cdot n^{-0.23}$ g/HP-hr) when maximum engine speed is greater than or equal to 130 but less than 2,000 rpm and where n is maximum engine speed; and

(iii) 7.7 g/KW-hr (5.7 g/HP-hr) when maximum engine speed is greater than or equal to 2,000 rpm.

(3) For engines installed on or after January 1, 2016, limit the emissions of NO_x in the stationary CI internal combustion engine exhaust to the following:

(i) 3.4 g/KW-hr (2.5 g/HP-hr) when maximum engine speed is less than 130 rpm;

(ii) $9.0 \cdot n^{-0.20}$ g/KW-hr ($6.7 \cdot n^{-0.20}$ g/HP-hr) where n (maximum engine speed) is 130 or more but less than 2,000 rpm; and

(iii) 2.0 g/KW-hr (1.5 g/HP-hr) where maximum engine speed is greater than or equal to 2,000 rpm.

(4) Reduce particulate matter (PM) emissions by 60 percent or more, or limit the emissions of PM in the stationary CI internal combustion engine exhaust to 0.15 g/KW-hr (0.11 g/HP-hr).

(d) Owners and operators of non-emergency stationary CI ICE with a displacement of less than 30 liters per cylinder who conduct performance tests in-use must meet the not-to-exceed (NTE) standards as indicated in § 60.4212.

(e) Owners and operators of any modified or reconstructed non-emergency stationary CI ICE subject to this subpart must meet the emission standards applicable to the model year, maximum engine power, and displacement of the modified or reconstructed non-emergency stationary CI ICE that are specified in paragraphs (a) through (d) of this section.

(f) Owners and operators of stationary CI ICE certified to the standards in 40 CFR part 1039 and equipped with AECDs as specified in 40 CFR 1039.665 must meet the Tier 1 certification emission standards for new nonroad CI engines in 40 CFR part 1039, appendix I, while the AECD is activated during a qualified emergency situation. A qualified emergency situation is defined in 40 CFR 1039.665. When the qualified emergency situation has ended and the AECD is deactivated, the engine must resume meeting the otherwise applicable emission standard specified in this section.

§ 60.4205 What emission standards must I meet for emergency engines if I am an owner or operator of a stationary CI internal combustion engine?

(a) Owners and operators of pre-2007 model year emergency stationary CI ICE with a displacement of less than 10 liters per cylinder that are not fire pump engines must comply with the emission standards in Table 1 to this subpart. Owners and operators of pre-2007 model year emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder that are not fire pump engines must comply with the Tier 1 emission standards in 40 CFR part 1042, appendix I.

(b) Owners and operators of 2007 model year and later emergency stationary CI ICE with a displacement of less than 30 liters per cylinder that are not fire pump engines must comply with the emission standards for new nonroad CI engines in § 60.4202, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI ICE.

(c) Owners and operators of fire pump engines with a displacement of less than 30 liters per cylinder must comply with the emission standards in table 4 to this subpart, for all pollutants.

(d) Owners and operators of emergency stationary CI engines with a displacement of greater than or equal to 30 liters per cylinder must meet the requirements in this section.

(1) For engines installed prior to January 1, 2012, limit the emissions of NO_x in the stationary CI internal combustion engine exhaust to the following:

- (i) 17.0 g/KW-hr (12.7 g/HP-hr) when maximum engine speed is less than 130 rpm;
- (ii) $45 \cdot n^{-0.2}$ g/KW-hr ($34 \cdot n^{-0.2}$ g/HP-hr) when maximum engine speed is 130 or more but less than 2,000 rpm, where n is maximum engine speed; and
- (iii) 9.8 g/kW-hr (7.3 g/HP-hr) when maximum engine speed is 2,000 rpm or more.

(2) For engines installed on or after January 1, 2012, limit the emissions of NO_x in the stationary CI internal combustion engine exhaust to the following:

- (i) 14.4 g/KW-hr (10.7 g/HP-hr) when maximum engine speed is less than 130 rpm;
- (ii) $44 \cdot n^{-0.23}$ g/KW-hr ($33 \cdot n^{-0.23}$ g/HP-hr) when maximum engine speed is greater than or equal to 130 but less than 2,000 rpm and where n is maximum engine speed; and
- (iii) 7.7 g/KW-hr (5.7 g/HP-hr) when maximum engine speed is greater than or equal to 2,000 rpm.

(3) Limit the emissions of PM in the stationary CI internal combustion engine exhaust to 0.40 g/KW-hr (0.30 g/HP-hr).

(e) Owners and operators of emergency stationary CI ICE with a displacement of less than 30 liters per cylinder who conduct performance tests in-use must meet the NTE standards as indicated in § 60.4212.

(f) Owners and operators of any modified or reconstructed emergency stationary CI ICE subject to this subpart must meet the emission standards applicable to the model year, maximum engine power, and displacement of the modified or reconstructed CI ICE that are specified in paragraphs (a) through (e) of this section.

§ 60.4206 How long must I meet the emission standards if I am an owner or operator of a stationary CI internal combustion engine?

Owners and operators of stationary CI ICE must operate and maintain stationary CI ICE that achieve the emission standards as required in §§ 60.4204 and 60.4205 over the entire life of the engine.

Fuel Requirements for Owners and Operators

§ 60.4207 What fuel requirements must I meet if I am an owner or operator of a stationary CI internal combustion engine subject to this subpart?

(a) [Reserved]

(b) Beginning October 1, 2010, owners and operators of stationary CI ICE subject to this subpart with a displacement of less than 30 liters per cylinder that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 1090.305 for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted.

(c) [Reserved]

(d) Beginning June 1, 2012, owners and operators of stationary CI ICE subject to this subpart with a displacement of greater than or equal to 30 liters per cylinder must use diesel fuel that meets a maximum per-gallon sulfur content of 1,000 parts per million (ppm).

(e) Stationary CI ICE that have a national security exemption under § 60.4200(d) are also exempt from the fuel requirements in this section.

Other Requirements for Owners and Operators

§ 60.4208 What is the deadline for importing or installing stationary CI ICE produced in previous model years?

(a) After December 31, 2008, owners and operators may not install stationary CI ICE (excluding fire pump engines) that do not meet the applicable requirements for 2007 model year engines.

(b) After December 31, 2009, owners and operators may not install stationary CI ICE with a maximum engine power of less than 19 KW (25 HP) (excluding fire pump engines) that do not meet the applicable requirements for 2008 model year engines.

(c) After December 31, 2014, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 19 KW (25 HP) and less than 56 KW (75 HP) that do not meet the applicable requirements for 2013 model year non-emergency engines.

(d) After December 31, 2013, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 56 KW (75 HP) and less than 130 KW (175 HP) that do not meet the applicable requirements for 2012 model year non-emergency engines.

(e) After December 31, 2012, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 130 KW (175 HP), including those above 560 KW (750 HP), that do not meet the applicable requirements for 2011 model year non-emergency engines.

(f) After December 31, 2016, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 560 KW (750 HP) that do not meet the applicable requirements for 2015 model year non-emergency engines.

(g) After December 31, 2018, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power greater than or equal to 600 KW (804 HP) and less than 2,000 KW (2,680 HP) and a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder that do not meet the applicable requirements for 2017 model year non-emergency engines.

(h) In addition to the requirements specified in §§ 60.4201, 60.4202, 60.4204, and 60.4205, it is prohibited to import stationary CI ICE with a displacement of less than 30 liters per cylinder that do not meet the applicable requirements specified in paragraphs (a) through (g) of this section after the dates specified in paragraphs (a) through (g) of this section.

(i) The requirements of this section do not apply to owners or operators of stationary CI ICE that have been modified, reconstructed, and do not apply to engines that were removed from one existing location and reinstalled at a new location.

§ 60.4209 What are the monitoring requirements if I am an owner or operator of a stationary CI internal combustion engine?

If you are an owner or operator, you must meet the monitoring requirements of this section. In addition, you must also meet the monitoring requirements specified in § 60.4211.

- (a) If you are an owner or operator of an emergency stationary CI internal combustion engine that does not meet the standards applicable to non-emergency engines, you must install a non-resettable hour meter prior to startup of the engine.
- (b) If you are an owner or operator of a stationary CI internal combustion engine equipped with a diesel particulate filter to comply with the emission standards in § 60.4204, the diesel particulate filter must be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached.

Compliance Requirements

§ 60.4210 What are my compliance requirements if I am a stationary CI internal combustion engine manufacturer?

- (a) Stationary CI internal combustion engine manufacturers must certify their stationary CI ICE with a displacement of less than 10 liters per cylinder to the emission standards specified in §§ 60.4201(a) through (c) and 60.4202(a), (b), and (d) using the certification procedures required in 40 CFR part 1039, subpart C, and must test their engines as specified in 40 CFR part 1039. For the purposes of this subpart, engines certified to the standards in Table 1 to this subpart shall be subject to the same certification procedures required for engines certified to the Tier 1 standards in 40 CFR part 1039, appendix I. For the purposes of this subpart, engines certified to the standards in Table 4 to this subpart shall be subject to the same certification procedures required for engines certified to the Tier 1 standards in 40 CFR part 1039, appendix I, except that engines with NFPA nameplate power of less than 37 KW (50 HP) certified to model year 2011 or later standards shall be subject to the same requirements as engines certified to the standards in 40 CFR part 1039.
- (b) Stationary CI internal combustion engine manufacturers must certify their stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder to the emission standards specified in §§ 60.4201(d) and (e) and 60.4202(e) and (f) using the certification procedures required in 40 CFR part 1042, subpart C, and must test their engines as specified in 40 CFR part 1042.
- (c) Stationary CI internal combustion engine manufacturers must meet the requirements of 40 CFR 1039.120, 1039.125, 1039.130, and 1039.135 and 40 CFR part 1068 for engines that are certified to the emission standards in 40 CFR part 1039. Stationary CI internal combustion engine manufacturers must meet the corresponding provisions of 40 CFR part 1042 for engines that would be covered by that part if they were nonroad (including marine) engines. Labels on such engines must refer to stationary engines, rather than or in addition to nonroad or marine engines, as appropriate. Stationary CI internal combustion engine manufacturers must label their engines according to paragraphs (c)(1) through (3) of this section.

(1) Stationary CI internal combustion engines manufactured from January 1, 2006 to March 31, 2006 (January 1, 2006 to June 30, 2006 for fire pump engines), other than those that are part of certified engine families under the nonroad CI engine regulations, must be labeled according to 40 CFR 1039.20.

(2) Stationary CI internal combustion engines manufactured from April 1, 2006 to December 31, 2006 (or, for fire pump engines, July 1, 2006 to December 31 of the year preceding the year listed in table 3 to this subpart) must be labeled according to paragraphs (c)(2)(i) through (iii) of this section:

(i) Stationary CI internal combustion engines that are part of certified engine families under the nonroad regulations must meet the labeling requirements for nonroad CI engines, but do not have to meet the labeling requirements in 40 CFR 1039.20.

(ii) Stationary CI internal combustion engines that meet Tier 1 requirements (or requirements for fire pumps) under this subpart, but do not meet the requirements applicable to nonroad CI engines must be labeled according to 40 CFR 1039.20. The engine manufacturer may add language to the label clarifying that the engine meets Tier 1 requirements (or requirements for fire pumps) of this subpart.

(iii) Stationary CI internal combustion engines manufactured after April 1, 2006 that do not meet Tier 1 requirements of this subpart, or fire pumps engines manufactured after July 1, 2006 that do not meet the requirements for fire pumps under this subpart, may not be used in the U.S. If any such engines are manufactured in the U.S. after April 1, 2006 (July 1, 2006 for fire pump engines), they must be exported or must be brought into compliance with the appropriate standards prior to initial operation. The export provisions of 40 CFR 1068.230 would apply to engines for export and the manufacturers must label such engines according to 40 CFR 1068.230.

(3) Stationary CI internal combustion engines manufactured after January 1, 2007 (for fire pump engines, after January 1 of the year listed in table 3 to this subpart, as applicable) must be labeled according to paragraphs (c)(3)(i) through (iii) of this section.

(i) Stationary CI internal combustion engines that meet the requirements of this subpart and the corresponding requirements for nonroad (including marine) engines of the same model year and HP must be labeled according to the provisions in 40 CFR part 1039 or 1042, as appropriate.

(ii) Stationary CI internal combustion engines that meet the requirements of this subpart, but are not certified to the standards applicable to nonroad (including marine) engines of the same model year and HP must be labeled according to the provisions in 40 CFR part 1039 or 1042, as appropriate, but the words "stationary" must be included instead of "nonroad" or "marine" on the label. In addition, such engines must be labeled according to 40 CFR 1039.20.

(iii) Stationary CI internal combustion engines that do not meet the requirements of this subpart must be labeled according to 40 CFR 1068.230 and must be exported under the provisions of 40 CFR 1068.230.

(d) An engine manufacturer certifying an engine family or families to standards under this subpart that are identical to standards applicable under 40 CFR part 1039 or 1042 for that model year may certify any such family that contains both nonroad (including marine) and stationary engines as a single engine family

and/or may include any such family containing stationary engines in the averaging, banking, and trading provisions applicable for such engines under those parts.

(e) Manufacturers of engine families discussed in paragraph (d) of this section may meet the labeling requirements referred to in paragraph (c) of this section for stationary CI ICE by either adding a separate label containing the information required in paragraph (c) of this section or by adding the words “and stationary” after the word “nonroad” or “marine,” as appropriate, to the label.

(f) Starting with the model years shown in table 5 to this subpart, stationary CI internal combustion engine manufacturers must add a permanent label stating that the engine is for stationary emergency use only to each new emergency stationary CI internal combustion engine greater than or equal to 19 KW (25 HP) that meets all the emission standards for emergency engines in § 60.4202 but does not meet all the emission standards for non-emergency engines in § 60.4201. The label must be added according to the labeling requirements specified in 40 CFR 1039.135(b). Engine manufacturers must specify in the owner's manual that operation of emergency engines is limited to emergency operations and required maintenance and testing.

(g) Manufacturers of fire pump engines may use the test cycle in table 6 to this subpart for testing fire pump engines and may test at the NFPA certified nameplate HP, provided that the engine is labeled as “Fire Pump Applications Only”.

(h) Engine manufacturers, including importers, may introduce into commerce uncertified engines or engines certified to earlier standards that were manufactured before the new or changed standards took effect until inventories are depleted, as long as such engines are part of normal inventory. For example, if the engine manufacturers' normal industry practice is to keep on hand a one-month supply of engines based on its projected sales, and a new tier of standards starts to apply for the 2009 model year, the engine manufacturer may manufacture engines based on the normal inventory requirements late in the 2008 model year, and sell those engines for installation. The engine manufacturer may not circumvent the provisions of § 60.4201 or § 60.4202 by stockpiling engines that are built before new or changed standards take effect. Stockpiling of such engines beyond normal industry practice is a violation of this subpart.

(i) The replacement engine provisions of 40 CFR 1068.240 are applicable to stationary CI engines replacing existing equipment that is less than 15 years old.

(j) Stationary CI ICE manufacturers may equip their stationary CI internal combustion engines certified to the emission standards in 40 CFR part 1039 with AECDs for qualified emergency situations according to the requirements of 40 CFR 1039.665. Manufacturers of stationary CI ICE equipped with AECDs as allowed by 40 CFR 1039.665 must meet all the requirements in 40 CFR 1039.665 that apply to manufacturers. Manufacturers must document that the engine complies with the Tier 1 standard in 40 CFR part 1039, appendix I, when the AECD is activated. Manufacturers must provide any relevant testing, engineering analysis, or other information in sufficient detail to support such statement when applying for certification (including amending an existing certificate) of an engine equipped with an AECD as allowed by 40 CFR 1039.665.

(k) Manufacturers of any size may certify their emergency stationary CI internal combustion engines under this section using assigned deterioration factors established by EPA, consistent with 40 CFR 1039.240 and 1042.240.

§ 60.4211 What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?

(a) If you are an owner or operator and must comply with the emission standards specified in this subpart, you must do all of the following, except as permitted under paragraph (g) of this section:

- (1) Operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions;
- (2) Change only those emission-related settings that are permitted by the manufacturer; and
- (3) Meet the requirements of 40 CFR part 1068, as they apply to you.

(b) If you are an owner or operator of a pre-2007 model year stationary CI internal combustion engine and must comply with the emission standards specified in § 60.4204(a) or § 60.4205(a), or if you are an owner or operator of a CI fire pump engine that is manufactured prior to the model years in table 3 to this subpart and must comply with the emission standards specified in § 60.4205(c), you must demonstrate compliance according to one of the methods specified in paragraphs (b)(1) through (5) of this section.

- (1) Purchasing an engine certified to emission standards for the same model year and maximum engine power as described in 40 CFR parts 1039 and 1042, as applicable. The engine must be installed and configured according to the manufacturer's specifications.
- (2) Keeping records of performance test results for each pollutant for a test conducted on a similar engine. The test must have been conducted using the same methods specified in this subpart and these methods must have been followed correctly.
- (3) Keeping records of engine manufacturer data indicating compliance with the standards.
- (4) Keeping records of control device vendor data indicating compliance with the standards.
- (5) Conducting an initial performance test to demonstrate compliance with the emission standards according to the requirements specified in § 60.4212, as applicable.

(c) If you are an owner or operator of a 2007 model year and later stationary CI internal combustion engine and must comply with the emission standards specified in § 60.4204(b) or § 60.4205(b), or if you are an owner or operator of a CI fire pump engine that is manufactured during or after the model year that applies to your fire pump engine power rating in table 3 to this subpart and must comply with the emission standards specified in § 60.4205(c), you must comply by purchasing an engine certified to the emission standards in § 60.4204(b), or § 60.4205(b) or (c), as applicable, for the same model year and maximum (or in the case of fire pumps, NFPA nameplate) engine power. The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in paragraph (g) of this section.

(d) If you are an owner or operator and must comply with the emission standards specified in § 60.4204(c) or § 60.4205(d), you must demonstrate compliance according to the requirements specified in paragraphs (d)(1) through (3) of this section.

- (1) Conducting an initial performance test to demonstrate initial compliance with the emission standards as specified in § 60.4213.

(2) Establishing operating parameters to be monitored continuously to ensure the stationary internal combustion engine continues to meet the emission standards. The owner or operator must petition the Administrator for approval of operating parameters to be monitored continuously. The petition must include the information described in paragraphs (d)(2)(i) through (v) of this section.

- (i) Identification of the specific parameters you propose to monitor continuously;
- (ii) A discussion of the relationship between these parameters and NO_x and PM emissions, identifying how the emissions of these pollutants change with changes in these parameters, and how limitations on these parameters will serve to limit NO_x and PM emissions;
- (iii) A discussion of how you will establish the upper and/or lower values for these parameters which will establish the limits on these parameters in the operating limitations;
- (iv) A discussion identifying the methods and the instruments you will use to monitor these parameters, as well as the relative accuracy and precision of these methods and instruments; and
- (v) A discussion identifying the frequency and methods for recalibrating the instruments you will use for monitoring these parameters.

(3) For non-emergency engines with a displacement of greater than or equal to 30 liters per cylinder, conducting annual performance tests to demonstrate continuous compliance with the emission standards as specified in § 60.4213.

(e) If you are an owner or operator of a modified or reconstructed stationary CI internal combustion engine and must comply with the emission standards specified in § 60.4204(e) or § 60.4205(f), you must demonstrate compliance according to one of the methods specified in paragraphs (e)(1) or (2) of this section.

(1) Purchasing, or otherwise owning or operating, an engine certified to the emission standards in § 60.4204(e) or § 60.4205(f), as applicable.

(2) Conducting a performance test to demonstrate initial compliance with the emission standards according to the requirements specified in § 60.4212 or § 60.4213, as appropriate. The test must be conducted within 60 days after the engine commences operation after the modification or reconstruction.

(f) If you own or operate an emergency stationary ICE, you must operate the emergency stationary ICE according to the requirements in paragraphs (f)(1) through (3) of this section. In order for the engine to be considered an emergency stationary ICE under this subpart, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1) through (3), is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1) through (3), the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.

(1) There is no time limit on the use of emergency stationary ICE in emergency situations.

(2) You may operate your emergency stationary ICE for the purpose specified in paragraph (f)(2)(i) of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency

situations as allowed by paragraph (f)(3) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2).

(i) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.

(ii) [reserved]

(iii) [reserved]

(3) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in paragraph (f)(2) of this section. Except as provided in paragraph (f)(3)(i) of this section, the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

(i) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:

(A) The engine is dispatched by the local balancing authority or local transmission and distribution system operator;

(B) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.

(C) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.

(D) The power is provided only to the facility itself or to support the local transmission and distribution system.

(E) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

(ii) [Reserved]

(g) If you do not install, configure, operate, and maintain your engine and control device according to the manufacturer's emission-related written instructions, or you change emission-related settings in a way that is not permitted by the manufacturer, you must demonstrate compliance as follows:

(1) If you are an owner or operator of a stationary CI internal combustion engine with maximum engine power less than 100 HP, you must keep a maintenance plan and records of conducted maintenance to demonstrate compliance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, if you do not install and configure the engine and control device according to the manufacturer's emission-related written instructions, or you change the emission-related settings in a way that is not permitted by the manufacturer, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of such action.

(2) If you are an owner or operator of a stationary CI internal combustion engine greater than or equal to 100 HP and less than or equal to 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer.

(3) If you are an owner or operator of a stationary CI internal combustion engine greater than 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer. You must conduct subsequent performance testing every 8,760 hours of engine operation or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards.

(h) The requirements for operators and prohibited acts specified in 40 CFR 1039.665 apply to owners or operators of stationary CI ICE equipped with AECs for qualified emergency situations as allowed by 40 CFR 1039.665.

Testing Requirements for Owners and Operators

§ 60.4212 What test methods and other procedures must I use if I am an owner or operator of a stationary CI internal combustion engine with a displacement of less than 30 liters per cylinder?

Owners and operators of stationary CI ICE with a displacement of less than 30 liters per cylinder who conduct performance tests pursuant to this subpart must do so according to paragraphs (a) through (e) of this section.

(a) The performance test must be conducted according to the in-use testing procedures in 40 CFR part 1039, subpart F, for stationary CI ICE with a displacement of less than 10 liters per cylinder, and according to 40 CFR part 1042, subpart F, for stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder. Alternatively, stationary CI ICE that are complying with Tier 2 or Tier 3 emission standards as described in 40 CFR part 1039, appendix I, or with Tier 2

emission standards as described in 40 CFR part 1042, appendix I, may follow the testing procedures specified in § 60.4213, as appropriate.

(b) Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR part 1039 must not exceed the not-to-exceed (NTE) standards for the same model year and maximum engine power as required in 40 CFR 1039.101(e) and 40 CFR 1039.102(g)(1), except as specified in 40 CFR 1039.104(d). This requirement starts when NTE requirements take effect for nonroad diesel engines under 40 CFR part 1039.

(c) Exhaust emissions from stationary CI ICE subject to Tier 2 or Tier 3 emission standards as described in 40 CFR part 1039, appendix I, or Tier 2 emission standards as described in 40 CFR part 1042, appendix I, must not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard, determined from the following equation:

$$\text{NTE requirement for each pollutant} = (1.25) \times (\text{STD}) \text{ (Eq. 1)}$$

Where:

STD = The standard specified for that pollutant in 40 CFR part 1039 or 1042, as applicable.

(d) Exhaust emissions from stationary CI ICE that are complying with the emission standards for pre-2007 model year engines in § 60.4204(a), § 60.4205(a), or § 60.4205(c) must not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard in § 60.4204(a), § 60.4205(a), or § 60.4205(c), determined from the equation in paragraph (c) of this section.

Where:

STD = The standard specified for that pollutant in § 60.4204(a), § 60.4205(a), or § 60.4205(c).

Alternatively, stationary CI ICE that are complying with the emission standards for pre-2007 model year engines in § 60.4204(a), § 60.4205(a), or § 60.4205(c) may follow the testing procedures specified in § 60.4213, as appropriate.

(e) Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR part 1042 must not exceed the NTE standards for the same model year and maximum engine power as required in 40 CFR 1042.101(c).

§ 60.4213 What test methods and other procedures must I use if I am an owner or operator of a stationary CI internal combustion engine with a displacement of greater than or equal to 30 liters per cylinder?

Owners and operators of stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder must conduct performance tests according to paragraphs (a) through (f) of this section.

(a) Each performance test must be conducted according to the requirements in § 60.8 and under the specific conditions that this subpart specifies in table 7. The test must be conducted within 10 percent of 100 percent peak (or the highest achievable) load.

(b) You may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in § 60.8(c).

(c) You must conduct three separate test runs for each performance test required in this section, as specified in § 60.8(f). Each test run must last at least 1 hour.

(d) To determine compliance with the percent reduction requirement, you must follow the requirements as specified in paragraphs (d)(1) through (3) of this section.

(1) You must use Equation 2 of this section to determine compliance with the percent reduction requirement:

$$\frac{C_i - C_o}{C_i} \times 100 = R \quad (\text{Eq. 2})$$

Where:

C_i = concentration of NO_x or PM at the control device inlet,

C_o = concentration of NO_x or PM at the control device outlet, and

R = percent reduction of NO_x or PM emissions.

(2) You must normalize the NO_x or PM concentrations at the inlet and outlet of the control device to a dry basis and to 15 percent oxygen (O_2) using Equation 3 of this section, or an equivalent percent carbon dioxide (CO_2) using the procedures described in paragraph (d)(3) of this section.

$$C_{\text{adj}} = C_d \frac{5.9}{20.9 - \% \text{ O}_2} \quad (\text{Eq. 3})$$

Where:

C_{adj} = Calculated NO_x or PM concentration adjusted to 15 percent O_2 .

C_d = Measured concentration of NO_x or PM, uncorrected.

5.9 = 20.9 percent O_2 –15 percent O_2 , the defined O_2 correction value, percent.

$\% \text{O}_2$ = Measured O_2 concentration, dry basis, percent.

(3) If pollutant concentrations are to be corrected to 15 percent O_2 and CO_2 concentration is measured in lieu of O_2 concentration measurement, a CO_2 correction factor is needed. Calculate the CO_2 correction factor as described in paragraphs (d)(3)(i) through (iii) of this section.

(i) Calculate the fuel-specific F_o value for the fuel burned during the test using values obtained from Method 19, Section 5.2, and the following equation:

$$F_o = \frac{0.209 F_d}{F_c} \quad (\text{Eq. 4})$$

Where:

F_o = Fuel factor based on the ratio of O_2 volume to the ultimate CO_2 volume produced by the fuel at zero percent excess air.

0.209 = Fraction of air that is O_2 , percent/100.

F_d = Ratio of the volume of dry effluent gas to the gross calorific value of the fuel from Method 19, dsm^3/J ($\text{dscf}/10^6 \text{ Btu}$).

F_c = Ratio of the volume of CO_2 produced to the gross calorific value of the fuel from Method 19, dsm^3/J ($\text{dscf}/10^6 \text{ Btu}$).

(ii) Calculate the CO₂ correction factor for correcting measurement data to 15 percent O₂, as follows:

$$X_{\text{CO}_2} = \frac{5.9}{F_0} \quad (\text{Eq. 5})$$

Where:

X_{CO2} = CO₂ correction factor, percent.

5.9 = 20.9 percent O₂–15 percent O₂, the defined O₂ correction value, percent.

(iii) Calculate the NO_x and PM gas concentrations adjusted to 15 percent O₂ using CO₂ as follows:

$$C_{\text{adj}} = C_d \frac{X_{\text{CO}_2}}{\% \text{CO}_2} \quad (\text{Eq. 6})$$

Where:

C_{adj} = Calculated NO_x or PM concentration adjusted to 15 percent O₂.

C_d = Measured concentration of NO_x or PM, uncorrected.

%CO₂ = Measured CO₂ concentration, dry basis, percent.

(e) To determine compliance with the NO_x mass per unit output emission limitation, convert the concentration of NO_x in the engine exhaust using Equation 7 of this section:

$$\text{ER} = \frac{C_d \times 1.912 \times 10^{-3} \times Q \times T}{\text{KW-hour}} \quad (\text{Eq. 7})$$

Where:

ER = Emission rate in grams per KW-hour.

C_d = Measured NO_x concentration in ppm.

1.912x10⁻³ = Conversion constant for ppm NO_x to grams per standard cubic meter at 25 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meter per hour.

T = Time of test run, in hours.

KW-hour = Brake work of the engine, in KW-hour.

(f) To determine compliance with the PM mass per unit output emission limitation, convert the concentration of PM in the engine exhaust using Equation 8 of this section:

$$\text{ER} = \frac{C_{\text{adj}} \times Q \times T}{\text{KW-hour}} \quad (\text{Eq. 8})$$

Where:

ER = Emission rate in grams per KW-hour.

C_{adj} = Calculated PM concentration in grams per standard cubic meter.

Q = Stack gas volumetric flow rate, in standard cubic meter per hour.

T = Time of test run, in hours.

KW-hour = Energy output of the engine, in KW.

Notification, Reports, and Records for Owners and Operators

§ 60.4214 What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary CI internal combustion engine?

(a) Owners and operators of non-emergency stationary CI ICE that are greater than 2,237 KW (3,000 HP), or have a displacement of greater than or equal to 10 liters per cylinder, or are pre-2007 model year engines that are greater than 130 KW (175 HP) and not certified, must meet the requirements of paragraphs (a)(1) and (2) of this section.

(1) Submit an initial notification as required in § 60.7(a)(1). The notification must include the information in paragraphs (a)(1)(i) through (v) of this section.

(i) Name and address of the owner or operator;

(ii) The address of the affected source;

(iii) Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement;

(iv) Emission control equipment; and

(v) Fuel used.

(2) Keep records of the information in paragraphs (a)(2)(i) through (iv) of this section.

(i) All notifications submitted to comply with this subpart and all documentation supporting any notification.

(ii) Maintenance conducted on the engine.

(iii) If the stationary CI internal combustion is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards.

(iv) If the stationary CI internal combustion is not a certified engine, documentation that the engine meets the emission standards.

(b) If the stationary CI internal combustion engine is an emergency stationary internal combustion engine, the owner or operator is not required to submit an initial notification. Starting with the model years in table 5 to this subpart, if the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the owner or operator must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The owner must record the time of operation of the engine and the reason the engine was in operation during that time.

(c) If the stationary CI internal combustion engine is equipped with a diesel particulate filter, the owner or operator must keep records of any corrective action taken after the backpressure monitor has notified the owner or operator that the high backpressure limit of the engine is approached.

(d) If you own or operate an emergency stationary CI ICE with a maximum engine power more than 100 HP that operates for the purpose specified in § 60.4211(f)(3)(i), you must submit an annual report according to the requirements in paragraphs (d)(1) through (3) of this section.

(1) The report must contain the following information:

(i) Company name and address where the engine is located.

(ii) Date of the report and beginning and ending dates of the reporting period.

(iii) Engine site rating and model year.

(iv) Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place.

(v) [reserved]

(vi) [reserved]

(vii) Hours spent for operation for the purposes specified in § 60.4211(f)(3)(i), including the date, start time, and end time for engine operation for the purposes specified in § 60.4211(f)(3)(i). The report must also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine.

(2) The first annual report must cover the calendar year 2015 and must be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year must be submitted no later than March 31 of the following calendar year.

(3) The annual report must be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the written report must be submitted to the Administrator at the appropriate address listed in § 60.4.

(e) Owners or operators of stationary CI ICE equipped with AECDs pursuant to the requirements of 40 CFR 1039.665 must report the use of AECDs as required by 40 CFR 1039.665(e).

(f) Beginning on February 26, 2025, within 60 days after the date of completing each performance test required by this subpart, you must submit the results of the performance test required under this section following the procedures specified in paragraphs (f)(1) and (2) of this section.

(1) *Data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT website (<https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert>) at the time of the test.* Submit the results of the performance test to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI), according to paragraph (g) of this section. The data must be submitted in a file format generated using the EPA's ERT. Alternatively, you may submit an electronic file consistent with the extensible markup language (XML) schema listed on the EPA's ERT website.

(2) *Data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT website at the time of the test.* The results of the performance test must be included as an attachment in the ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT website. Submit the ERT generated package or alternative file to the EPA via CEDRI according to paragraph (g) of this section.

(g) If you are required to submit notifications or reports following the procedure specified in this paragraph (g), you must submit notifications or reports to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI), which can be accessed through the EPA's Central Data Exchange (CDX) (<https://cdx.epa.gov/>). The EPA will make all the information submitted through CEDRI available to the public without further notice to you. Do not use CEDRI to submit information you claim as CBI. Although we do not expect persons to assert a claim of CBI, if you wish to assert a CBI claim for some of the information in the report or notification, you must submit a complete file in the format specified in this subpart, including information claimed to be CBI, to the EPA following the procedures in paragraphs (g)(1) and (2) of this section. Clearly mark the part or all of the information that you claim to be CBI. Information not marked as CBI may be authorized for public release without prior notice. Information marked as CBI will not be disclosed except in accordance with procedures set forth in 40 CFR part 2. All CBI claims must be asserted at the time of submission. Anything submitted using CEDRI cannot later be claimed CBI. Furthermore, under CAA section 114(c), emissions data is not entitled to confidential treatment, and the EPA is required to make emissions data available to the public. Thus, emissions data will not be protected as CBI and will be made publicly available. You must submit the same file submitted to the CBI office with the CBI omitted to the EPA via the EPA's CDX as described earlier in this paragraph (g).

(1) The preferred method to receive CBI is for it to be transmitted electronically using email attachments, File Transfer Protocol, or other online file sharing services. Electronic submissions must be transmitted directly to the OAQPS CBI Office at the email address oaqpscbi@epa.gov, and as described in paragraph (g) of this section, should include clear CBI markings. ERT files should be flagged to the attention of the Group Leader, Measurement Policy Group; all other files should be flagged to the attention of the Stationary Compression Ignition Internal Combustion Engine Sector Lead. If assistance is needed with submitting large electronic files that exceed the file size limit for email attachments, and if you do not have your own file sharing service, please email oaqpscbi@epa.gov to request a file transfer link.

(2) If you cannot transmit the file electronically, you may send CBI information through the postal service to the following address: OAQPS Document Control Officer (C404-02), OAQPS, U.S. Environmental Protection Agency, 109 T.W. Alexander Drive, P.O. Box 12055, Research Triangle Park, North Carolina 27711. ERT files should be sent to the attention of the Group Leader, Measurement Policy Group, and all other files should be sent to the attention of the Stationary Compression Ignition Internal Combustion Engine Sector Lead. The mailed CBI material should be double wrapped and clearly marked. Any CBI markings should not show through the outer envelope.

(h) If you are required to electronically submit a report through CEDRI in the EPA's CDX, you may assert a claim of EPA system outage for failure to timely comply with that reporting requirement. To assert a claim of EPA system outage, you must meet the requirements outlined in paragraphs (h)(1) through (7) of this section.

- (1) You must have been or will be precluded from accessing CEDRI and submitting a required report within the time prescribed due to an outage of either the EPA's CEDRI or CDX systems.
 - (2) The outage must have occurred within the period of time beginning five business days prior to the date that the submission is due.
 - (3) The outage may be planned or unplanned.
 - (4) You must submit notification to the Administrator in writing as soon as possible following the date you first knew, or through due diligence should have known, that the event may cause or has caused a delay in reporting.
 - (5) You must provide to the Administrator a written description identifying:
 - (i) The date(s) and time(s) when CDX or CEDRI was accessed and the system was unavailable;
 - (ii) A rationale for attributing the delay in reporting beyond the regulatory deadline to EPA system outage;
 - (iii) A description of measures taken or to be taken to minimize the delay in reporting; and
 - (iv) The date by which you propose to report, or if you have already met the reporting requirement at the time of the notification, the date you reported.
 - (6) The decision to accept the claim of EPA system outage and allow an extension to the reporting deadline is solely within the discretion of the Administrator.
 - (7) In any circumstance, the report must be submitted electronically as soon as possible after the outage is resolved.
- (i) If you are required to electronically submit a report through CEDRI in the EPA's CDX, you may assert a claim of force majeure for failure to timely comply with that reporting requirement. To assert a claim of force majeure, you must meet the requirements outlined in paragraphs (i)(1) through (5) of this section.
- (1) You may submit a claim if a force majeure event is about to occur, occurs, or has occurred or there are lingering effects from such an event within the period of time beginning five business days prior to the date the submission is due. For the purposes of this section, a force majeure event is defined as an event that will be or has been caused by circumstances beyond the control of the affected facility, its contractors, or any entity controlled by the affected facility that prevents you from complying with the requirement to submit a report electronically within the time period prescribed. Examples of such events are acts of nature (*e.g.*, hurricanes, earthquakes, or floods), acts of war or terrorism, or equipment failure or safety hazard beyond the control of the affected facility (*e.g.*, large scale power outage).
 - (2) You must submit notification to the Administrator in writing as soon as possible following the date you first knew, or through due diligence should have known, that the event may cause or has caused a delay in reporting.
 - (3) You must provide to the Administrator:
 - (i) A written description of the force majeure event;

- (ii) A rationale for attributing the delay in reporting beyond the regulatory deadline to the force majeure event;
- (iii) A description of measures taken or to be taken to minimize the delay in reporting; and
- (iv) The date by which you propose to report, or if you have already met the reporting requirement at the time of the notification, the date you reported.

(4) The decision to accept the claim of force majeure and allow an extension to the reporting deadline is solely within the discretion of the Administrator.

(5) In any circumstance, the reporting must occur as soon as possible after the force majeure event occurs.

(j) Any records required to be maintained by this subpart that are submitted electronically via the EPA's CEDRI may be maintained in electronic format. This ability to maintain electronic copies does not affect the requirement for facilities to make records, data, and reports available upon request to a delegated air agency or the EPA as part of an on-site compliance evaluation.

Special Requirements

§ 60.4215 What requirements must I meet for engines used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands?

- (a) Stationary CI ICE with a displacement of less than 30 liters per cylinder that are used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands are required to meet the applicable emission standards in §§ 60.4202 and 60.4205.
- (b) Stationary CI ICE that are used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands are not required to meet the fuel requirements in § 60.4207.
- (c) Stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder that are used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands are required to meet the following emission standards:
 - (1) For engines installed prior to January 1, 2012, limit the emissions of NO_x in the stationary CI internal combustion engine exhaust to the following:
 - (i) 17.0 g/KW-hr (12.7 g/HP-hr) when maximum engine speed is less than 130 rpm;
 - (ii) $45 \cdot n^{-0.2}$ g/KW-hr ($34 \cdot n^{-0.2}$ g/HP-hr) when maximum engine speed is 130 or more but less than 2,000 rpm, where n is maximum engine speed; and
 - (iii) 9.8 g/KW-hr (7.3 g/HP-hr) when maximum engine speed is 2,000 rpm or more.
 - (2) For engines installed on or after January 1, 2012, limit the emissions of NO_x in the stationary CI internal combustion engine exhaust to the following:
 - (i) 14.4 g/KW-hr (10.7 g/HP-hr) when maximum engine speed is less than 130 rpm;
 - (ii) $44 \cdot n^{-0.23}$ g/KW-hr ($33 \cdot n^{-0.23}$ g/HP-hr) when maximum engine speed is greater than or equal to 130 but less than 2,000 rpm and where n is maximum engine speed; and

(iii) 7.7 g/KW-hr (5.7 g/HP-hr) when maximum engine speed is greater than or equal to 2,000 rpm.

(3) Limit the emissions of PM in the stationary CI internal combustion engine exhaust to 0.40 g/KW-hr (0.30 g/HP-hr).

§ 60.4216 What requirements must I meet for engines used in Alaska?

- (a) Prior to December 1, 2010, owners and operators of stationary CI ICE with a displacement of less than 30 liters per cylinder located in areas of Alaska not accessible by the FAHS should refer to 40 CFR part 69 to determine the diesel fuel requirements applicable to such engines.
- (b) Except as indicated in paragraph (c) of this section, manufacturers, owners and operators of stationary CI ICE with a displacement of less than 10 liters per cylinder located in remote areas of Alaska may meet the requirements of this subpart by manufacturing and installing engines meeting the Tier 2 or Tier 3 emission standards described in 40 CFR part 1042 for the same model year, displacement, and maximum engine power, as appropriate, rather than the otherwise applicable requirements of 40 CFR part 1039, as indicated in §§ 60.4201(f) and 60.4202(g).
- (c) Manufacturers, owners, and operators of stationary CI ICE that are located in remote areas of Alaska may choose to meet the applicable emission standards for emergency engines in §§ 60.4202 and 60.4205, and not those for non-emergency engines in §§ 60.4201 and 60.4204, except that for 2014 model year and later nonemergency CI ICE, the owner or operator of any such engine must have that engine certified as meeting at least the Tier 3 PM standards identified in appendix I of 40 CFR part 1039 or in 40 CFR 1042.101.
- (d) The provisions of § 60.4207 do not apply to owners and operators of pre-2014 model year stationary CI ICE subject to this subpart that are located in remote areas of Alaska.
- (e) The provisions of § 60.4208(a) do not apply to owners and operators of stationary CI ICE subject to this subpart that are located in areas of Alaska not accessible by the FAHS until after December 31, 2009.
- (f) The provisions of this section and § 60.4207 do not prevent owners and operators of stationary CI ICE subject to this subpart that are located in remote areas of Alaska from using fuels mixed with used lubricating oil, in volumes of up to 1.75 percent of the total fuel. The sulfur content of the used lubricating oil must be less than 200 parts per million. The used lubricating oil must meet the on-specification levels and properties for used oil in 40 CFR 279.11.

§ 60.4217 What emission standards must I meet if I am an owner or operator of a stationary internal combustion engine using special fuels?

Owners and operators of stationary CI ICE that do not use diesel fuel may petition the Administrator for approval of alternative emission standards, if they can demonstrate that they use a fuel that is not the fuel on which the manufacturer of the engine certified the engine and that the engine cannot meet the applicable standards required in § 60.4204 or § 60.4205 using such fuels and that use of such fuel is appropriate and reasonably necessary, considering cost, energy, technical feasibility, human health and environmental, and other factors, for the operation of the engine.

General Provisions

§ 60.4218 What parts of the General Provisions apply to me?

Table 8 to this subpart shows which parts of the General Provisions in §§ 60.1 through 60.19 apply to you.

Definitions

§ 60.4219 What definitions apply to this subpart?

As used in this subpart, all terms not defined herein shall have the meaning given them in the CAA and in subpart A of this part.

Alaska Railbelt Grid means the service areas of the six regulated public utilities that extend from Fairbanks to Anchorage and the Kenai Peninsula. These utilities are Golden Valley Electric Association; Chugach Electric Association; Matanuska Electric Association; Homer Electric Association; Anchorage Municipal Light & Power; and the City of Seward Electric System.

Certified emissions life means the period during which the engine is designed to properly function in terms of reliability and fuel consumption, without being remanufactured, specified as a number of hours of operation or calendar years, whichever comes first. The values for certified emissions life for stationary CI ICE with a displacement of less than 10 liters per cylinder are given in 40 CFR 1039.101(g). The values for certified emissions life for stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder are given in 40 CFR 1042.101(e).

Combustion turbine means all equipment, including but not limited to the turbine, the fuel, air, lubrication and exhaust gas systems, control systems (except emissions control equipment), and any ancillary components and sub-components comprising any simple cycle combustion turbine, any regenerative/recuperative cycle combustion turbine, the combustion turbine portion of any cogeneration cycle combustion system, or the combustion turbine portion of any combined cycle steam/electric generating system.

Compression ignition means relating to a type of stationary internal combustion engine that is not a spark ignition engine.

Date of manufacture means one of the following things:

- (1) For freshly manufactured engines and modified engines, date of manufacture means the date the engine is originally produced.
- (2) For reconstructed engines, date of manufacture means the date the engine was originally produced, except as specified in paragraph (3) of this definition.
- (3) Reconstructed engines are assigned a new date of manufacture if the fixed capital cost of the new and refurbished components exceeds 75 percent of the fixed capital cost of a comparable entirely new facility. An engine that is produced from a previously used engine block does not retain the date of manufacture of the engine in which the engine block was previously used if the engine is produced using all new components except for the engine block. In these cases, the date of manufacture is the date of reconstruction or the date the new engine is produced.

Diesel fuel means any liquid obtained from the distillation of petroleum with a boiling point of approximately 150 to 360 degrees Celsius. One commonly used form is number 2 distillate oil.

Diesel particulate filter means an emission control technology that reduces PM emissions by trapping the particles in a flow filter substrate and periodically removes the collected particles by either physical action or by oxidizing (burning off) the particles in a process called regeneration.

Emergency stationary internal combustion engine means any stationary reciprocating internal combustion engine that meets all of the criteria in paragraphs (1) through (3) of this definition. All emergency stationary ICE must comply with the requirements specified in § 60.4211(f) in order to be considered emergency stationary ICE. If the engine does not comply with the requirements specified in § 60.4211(f), then it is not considered to be an emergency stationary ICE under this subpart.

(1) The stationary ICE is operated to provide electrical power or mechanical work during an emergency situation. Examples include stationary ICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary ICE used to pump water in the case of fire or flood, etc.

(2) The stationary ICE is operated under limited circumstances for situations not included in paragraph (1) of this definition, as specified in § 60.4211(f).

(3) The stationary ICE operates as part of a financial arrangement with another entity in situations not included in paragraph (1) of this definition only as allowed in § 60.4211(f)(3)(i).

Engine manufacturer means the manufacturer of the engine. See the definition of “manufacturer” in this section.

Fire pump engine means an emergency stationary internal combustion engine certified to NFPA requirements that is used to provide power to pump water for fire suppression or protection.

Freshly manufactured engine means an engine that has not been placed into service. An engine becomes freshly manufactured when it is originally produced.

Installed means the engine is placed and secured at the location where it is intended to be operated.

Manufacturer has the meaning given in section 216(1) of the Act. In general, this term includes any person who manufactures a stationary engine for sale in the United States or otherwise introduces a new stationary engine into commerce in the United States. This includes importers who import stationary engines for sale or resale.

Maximum engine power means maximum engine power as defined in 40 CFR 1039.801.

Model year means the calendar year in which an engine is manufactured (see “date of manufacture”), except as follows:

(1) Model year means the annual new model production period of the engine manufacturer in which an engine is manufactured (see “date of manufacture”), if the annual new model production period is different than the calendar year and includes January 1 of the calendar year for which the model year is named. It may not begin before January 2 of the previous calendar year and it must end by December 31 of the named calendar year.

(2) For an engine that is converted to a stationary engine after being placed into service as a nonroad or other non-stationary engine, model year means the calendar year or new model production period in which the engine was manufactured (see “date of manufacture”).

Other internal combustion engine means any internal combustion engine, except combustion turbines, which is not a reciprocating internal combustion engine or rotary internal combustion engine.

Reciprocating internal combustion engine means any internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work.

Remote areas of Alaska means areas of Alaska that meet either paragraph (1) or (2) of this definition.

(1) Areas of Alaska that are not accessible by the Federal Aid Highway System (FAHS).

(2) Areas of Alaska that meet all of the following criteria:

(i) The only connection to the FAHS is through the Alaska Marine Highway System, or the stationary CI ICE operation is within an isolated grid in Alaska that is not connected to the statewide electrical grid referred to as the Alaska Railbelt Grid.

(ii) At least 10 percent of the power generated by the stationary CI ICE on an annual basis is used for residential purposes.

(iii) The generating capacity of the source is less than 12 megawatts, or the stationary CI ICE is used exclusively for backup power for renewable energy.

Rotary internal combustion engine means any internal combustion engine which uses rotary motion to convert heat energy into mechanical work.

Spark ignition means relating to a gasoline, natural gas, or liquefied petroleum gas fueled engine or any other type of engine with a spark plug (or other sparking device) and with operating characteristics significantly similar to theoretical Otto combustion cycle. Spark ignition engines usually use a throttle to regulate intake air flow to control power during normal operation. Dual-fuel engines in which a liquid fuel (typically diesel fuel) is used for CI and gaseous fuel (typically natural gas) is used as the primary fuel at an annual average ratio of less than 2 parts diesel fuel to 100 parts total fuel on an energy equivalent basis are spark ignition engines.

Stationary internal combustion engine means any internal combustion engine, except combustion turbines, that converts heat energy into mechanical work and is not mobile. Stationary ICE differ from mobile ICE in that a stationary internal combustion engine is not a nonroad engine as defined at 40 CFR 1068.30 (excluding paragraph (2)(ii) of that definition), and is not used to propel a motor vehicle, aircraft, or a vehicle used solely for competition. Stationary ICE include reciprocating ICE, rotary ICE, and other ICE, except combustion turbines.

Subpart means 40 CFR part 60, subpart IIII.

Table 1 to Subpart IIII of Part 60 - Emission Standards for Stationary Pre-2007 Model Year Engines With a Displacement of <10 Liters per Cylinder and 2007-2010 Model Year Engines >2,237 KW (3,000 HP) and With a Displacement of <10 Liters per Cylinder

[As stated in §§ 60.4201(b), 60.4202(b), 60.4204(a), and 60.4205(a), you must comply with the following emission standards]

Maximum engine power	Emission standards for stationary pre-2007 model year engines with a displacement of <10 liters per cylinder and 2007-2010 model year engines >2,237 KW (3,000 HP) and with a displacement of <10 liters per cylinder in g/KW-hr (g/HP-hr)				
	NMHC + NO _x	HC	NO _x	CO	PM
KW<8 (HP<11)	10.5 (7.8)			8.0 (6.0)	1.0 (0.75)
8≤KW<19 (11≤HP<25)	9.5 (7.1)			6.6 (4.9)	0.80 (0.60)
19≤KW<37 (25≤HP<50)	9.5 (7.1)			5.5 (4.1)	0.80 (0.60)
37≤KW<56 (50≤HP<75)			9.2 (6.9)		
56≤KW<75 (75≤HP<100)			9.2 (6.9)		
75≤KW<130 (100≤HP<175)			9.2 (6.9)		
130≤KW<225 (175≤HP<300)		1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)
225≤KW<450 (300≤HP<600)		1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)
450≤KW≤560 (600≤HP≤750)		1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)
KW>560 (HP>750)		1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)

Table 2 to Subpart IIII of Part 60 - Emission Standards for 2008 Model Year and Later Emergency Stationary CI ICE <37 KW (50 HP) With a Displacement of <10 Liters per Cylinder

[As stated in § 60.4202(a)(1), you must comply with the following emission standards]

Engine power	Emission standards for 2008 model year and later emergency stationary CI ICE <37 KW (50 HP) with a displacement of <10 liters per cylinder in g/KW-hr (g/HP-hr)			
	Model year(s)	NO _x + NMHC	CO	PM
KW<8 (HP<11)	2008 +	7.5 (5.6)	8.0 (6.0)	0.40 (0.30)
8≤KW<19 (11≤HP<25)	2008 +	7.5 (5.6)	6.6 (4.9)	0.40 (0.30)
19≤KW<37	2008 +	7.5 (5.6)	5.5 (4.1)	0.30 (0.22)

Engine power	Emission standards for 2008 model year and later emergency stationary CI ICE <37 KW (50 HP) with a displacement of <10 liters per cylinder in g/KW-hr (g/HP-hr)			
	Model year(s)	NO _x + NMHC	CO	PM
(25≤HP<50)				

Table 3 to Subpart IIII of Part 60 - Certification Requirements for Stationary Fire Pump Engines

As stated in § 60.4202(d), you must certify new stationary fire pump engines beginning with the following model years:

Engine power	Starting model year engine manufacturers must certify new stationary fire pump engines according to § 60.4202(d) ¹
KW<75 (HP<100)	2011
75≤KW<130 (100≤HP<175)	2010
130≤KW≤560 (175≤HP≤750)	2009
KW>560 (HP>750)	2008

¹Manufacturers of fire pump stationary CI ICE with a maximum engine power greater than or equal to 37 kW (50 HP) and less than 450 KW (600 HP) and a rated speed of greater than 2,650 revolutions per minute (rpm) are not required to certify such engines until three model years following the model year indicated in this Table 3 for engines in the applicable engine power category.

Table 4 to Subpart IIII of Part 60 - Emission Standards for Stationary Fire Pump Engines

[As stated in §§ 60.4202(d) and 60.4205(c), you must comply with the following emission standards for stationary fire pump engines]

Maximum engine power	Model year(s)	NMHC + NO _x	CO	PM
KW<8 (HP<11)	2010 and earlier	10.5 (7.8)	8.0 (6.0)	1.0 (0.75)
	2011 +	7.5 (5.6)		0.40 (0.30)
8≤KW<19 (11≤HP<25)	2010 and earlier	9.5 (7.1)	6.6 (4.9)	0.80 (0.60)
	2011 +	7.5 (5.6)		0.40 (0.30)

Maximum engine power	Model year(s)	NMHC + NO _x	CO	PM
19≤KW<37 (25≤HP<50)	2010 and earlier	9.5 (7.1)	5.5 (4.1)	0.80 (0.60)
	2011 +	7.5 (5.6)		0.30 (0.22)
37≤KW<56 (50≤HP<75)	2010 and earlier	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)
	2011 + ¹	4.7 (3.5)		0.40 (0.30)
56≤KW<75 (75≤HP<100)	2010 and earlier	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)
	2011 + ¹	4.7 (3.5)		0.40 (0.30)
75≤KW<130 (100≤HP<175)	2009 and earlier	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)
	2010 + ²	4.0 (3.0)		0.30 (0.22)
130≤KW<225 (175≤HP<300)	2008 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2009 + ³	4.0 (3.0)		0.20 (0.15)
225≤KW<450 (300≤HP<600)	2008 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2009 + ³	4.0 (3.0)		0.20 (0.15)
450≤KW≤560 (600≤HP≤750)	2008 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2009 +	4.0 (3.0)		0.20 (0.15)
KW>560 (HP>750)	2007 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2008 +	6.4 (4.8)		0.20 (0.15)

¹ For model years 2011-2013, manufacturers, owners and operators of fire pump stationary CI ICE in this engine power category with a rated speed of greater than 2,650 revolutions per minute (rpm) may comply with the emission limitations for 2010 model year engines.

² For model years 2010-2012, manufacturers, owners and operators of fire pump stationary CI ICE in this engine power category with a rated speed of greater than 2,650 rpm may comply with the emission limitations for 2009 model year engines.

³ In model years 2009-2011, manufacturers of fire pump stationary CI ICE in this engine power category with a rated speed of greater than 2,650 rpm may comply with the emission limitations for 2008 model year engines.

Table 5 to Subpart IIII of Part 60 - Labeling and Recordkeeping Requirements for New Stationary Emergency Engines

[You must comply with the labeling requirements in § 60.4210(f) and the recordkeeping requirements in § 60.4214(b) for new emergency stationary CI ICE beginning in the following model years:]

Engine power	Starting model year

Engine power	Starting model year
19≤KW<56 (25≤HP<75)	2013
56≤KW<130 (75≤HP<175)	2012
KW≥130 (HP≥175)	2011

Table 6 to Subpart IIII of Part 60 - Optional 3-Mode Test Cycle for Stationary Fire Pump Engines

[As stated in § 60.4210(g), manufacturers of fire pump engines may use the following test cycle for testing fire pump engines:]

Mode No.	Engine speed ¹	Torque (percent) ²	Weighting factors
1	Rated	100	0.30
2	Rated	75	0.50
3	Rated	50	0.20

¹ Engine speed: ±2 percent of point.

² Torque: NFPA certified nameplate HP for 100 percent point. All points should be ±2 percent of engine percent load value.

Table 7 to Subpart IIII of Part 60 - Requirements for Performance Tests for Stationary CI ICE With a Displacement of ≥30 Liters per Cylinder

As stated in § 60.4213, you must comply with the following requirements for performance tests for stationary CI ICE with a displacement of ≥30 liters per cylinder:

Each	Complying with the requirement to	You must	Using	According to the following requirements
1. Stationary CI internal combustion engine with a displacement of ≥ 30 liters per cylinder	a. Reduce NO _x emissions by 90 percent or more;	i. Select the sampling port location and number/location of traverse points at the inlet and outlet of the control device;		(a) For NO _x , O ₂ , and moisture measurement, ducts ≤6 inches in diameter may be sampled at a single point located at the duct centroid and ducts >6 and ≤12 inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3% of the measurement line ('3-point long line'). If the duct is >12 inches in diameter <i>and</i> the sampling port location meets the two and half-diameter criterion of Section 11.1.1 of Method 1 of 40 CFR part 60, appendix A-1, the duct may be sampled at '3-point long line';

Each	Complying with the requirement to	You must	Using	According to the following requirements
				otherwise, conduct the stratification testing and select sampling points according to Section 8.1.2 of Method 7E of 40 CFR part 60, appendix A-4.
		ii. Measure O ₂ at the inlet and outlet of the control device;	(1) Method 3, 3A, or 3B of 40 CFR part 60, appendix A-2	(b) Measurements to determine O ₂ concentration must be made at the same time as the measurements for NO _x concentration.
		iii. If necessary, measure moisture content at the inlet and outlet of the control device; and	(2) Method 4 of 40 CFR part 60, appendix A-3, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03 (incorporated by reference, see § 60.17)	(c) Measurements to determine moisture content must be made at the same time as the measurements for NO _x concentration.
		iv. Measure NO _x at the inlet and outlet of the control device.	(3) Method 7E of 40 CFR part 60, appendix A-4, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03 (incorporated by reference, see § 60.17)	(d) NO _x concentration must be at 15 percent O ₂ , dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
	b. Limit the concentration of NO _x in the stationary CI internal combustion engine exhaust.	i. Select the sampling port location and number/location of traverse points at the exhaust of the stationary internal combustion engine;		(a) For NO _x , O ₂ , and moisture measurement, ducts ≤6 inches in diameter may be sampled at a single point located at the duct centroid and ducts >6 and ≤12 inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3% of the measurement line ('3-point long line'). If the duct is >12 inches in diameter <i>and</i> the sampling port location meets the two and half-diameter criterion of Section 11.1.1 of Method 1 of 40 CFR part 60, appendix A-1, the duct may be sampled at '3-point long line'; otherwise, conduct the stratification testing and select sampling points according to Section 8.1.2 of Method 7E of 40 CFR part 60, appendix A-4.
		ii. Determine the O ₂ concentration of the stationary internal combustion engine	(1) Method 3, 3A, or 3B of 40 CFR part 60, appendix A-2	(b) Measurements to determine O ₂ concentration must be made at the same time as the measurement for NO _x concentration.

Each	Complying with the requirement to	You must	Using	According to the following requirements
		exhaust at the sampling port location;		
		iii. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and	(2) Method 4 of 40 CFR part 60, appendix A-3, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03 (incorporated by reference, see § 60.17)	(c) Measurements to determine moisture content must be made at the same time as the measurement for NO _x concentration.
		iv. Measure NO _x at the exhaust of the stationary internal combustion engine; if using a control device, the sampling site must be located at the outlet of the control device.	(3) Method 7E of 40 CFR part 60, appendix A-4, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03 (incorporated by reference, see § 60.17)	(d) NO _x concentration must be at 15 percent O ₂ , dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
	c. Reduce PM emissions by 60 percent or more	i. Select the sampling port location and the number of traverse points;	(1) Method 1 or 1A of 40 CFR part 60, appendix A-1	(a) Sampling sites must be located at the inlet and outlet of the control device.
		ii. Measure O ₂ at the inlet and outlet of the control device;	(2) Method 3, 3A, or 3B of 40 CFR part 60, appendix A-2	(b) Measurements to determine O ₂ concentration must be made at the same time as the measurements for PM concentration.
		iii. If necessary, measure moisture content at the inlet and outlet of the control device; and	(3) Method 4 of 40 CFR part 60, appendix A-3	(c) Measurements to determine and moisture content must be made at the same time as the measurements for PM concentration.
		iv. Measure PM at the inlet and outlet of the control device.	(4) Method 5 of 40 CFR part 60, appendix A-3	(d) PM concentration must be at 15 percent O ₂ , dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
	d. Limit the concentration of PM in the stationary CI internal combustion engine exhaust	i. Select the sampling port location and the number of traverse points;	(1) Method 1 or 1A of 40 CFR part 60, appendix A-1	(a) If using a control device, the sampling site must be located at the outlet of the control device.
		ii. Determine the O ₂ concentration of the stationary internal	(2) Method 3, 3A, or 3B of 40 CFR part 60,	(b) Measurements to determine O ₂ concentration must be made at the same time as the measurements for PM

Each	Complying with the requirement to	You must	Using	According to the following requirements
		combustion engine exhaust at the sampling port location;	appendix A-2	concentration.
		iii. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and	(3) Method 4 of 40 CFR part 60, appendix A-3	(c) Measurements to determine moisture content must be made at the same time as the measurements for PM concentration.
		iv. Measure PM at the exhaust of the stationary internal combustion engine.	(4) Method 5 of 40 CFR part 60, appendix A-3	(d) PM concentration must be at 15 percent O ₂ , dry basis. Results of this test consist of the average of the three 1-hour or longer runs.

Table 8 to Subpart IIII of Part 60 - Applicability of General Provisions to Subpart IIII

[As stated in § 60.4218, you must comply with the following applicable General Provisions:]

General Provisions citation	Subject of citation	Applies to subpart	Explanation
§ 60.1	General applicability of the General Provisions	Yes	
§ 60.2	Definitions	Yes	Additional terms defined in § 60.4219.
§ 60.3	Units and abbreviations	Yes	
§ 60.4	Address	Yes	
§ 60.5	Determination of construction or modification	Yes	
§ 60.6	Review of plans	Yes	
§ 60.7	Notification and Recordkeeping	Yes	Except that § 60.7 only applies as specified in § 60.4214(a).
§ 60.8	Performance tests	Yes	Except that § 60.8 only applies to stationary CI ICE with a displacement of (≥30 liters per cylinder and engines that are not certified.
§ 60.9	Availability of information	Yes	
§ 60.10	State Authority	Yes	
§ 60.11	Compliance with standards and maintenance requirements	No	Requirements are specified in subpart IIII.

Permit Issued: [month day, year]
Permit Expires: [month day, year]

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General Provisions citation	Subject of citation	Applies to subpart	Explanation
§ 60.12	Circumvention	Yes	
§ 60.13	Monitoring requirements	Yes	Except that § 60.13 only applies to stationary CI ICE with a displacement of (≥30 liters per cylinder.
§ 60.14	Modification	Yes	
§ 60.15	Reconstruction	Yes	
§ 60.16	Priority list	Yes	
§ 60.17	Incorporations by reference	Yes	
§ 60.18	General control device requirements	No	
§ 60.19	General notification and reporting requirements	Yes	

Appendix H. 40 CFR Part 63, Subpart A—General Provisions

§ 63.1 Applicability.

(a) *General.*

- (1) Terms used throughout this part are defined in § 63.2 or in the Clean Air Act (Act) as amended in 1990, except that individual subparts of this part may include specific definitions in addition to or that supersede definitions in § 63.2.
- (2) This part contains national emission standards for hazardous air pollutants (NESHAP) established pursuant to section 112 of the Act as amended November 15, 1990. These standards regulate specific categories of stationary sources that emit (or have the potential to emit) one or more hazardous air pollutants listed in this part pursuant to section 112(b) of the Act. This section explains the applicability of such standards to sources affected by them. The standards in this part are independent of NESHAP contained in 40 CFR part 61. The NESHAP in part 61 promulgated by signature of the Administrator before November 15, 1990 (i.e., the date of enactment of the Clean Air Act Amendments of 1990) remain in effect until they are amended, if appropriate, and added to this part.
- (3) No emission standard or other requirement established under this part shall be interpreted, construed, or applied to diminish or replace the requirements of a more stringent emission limitation or other applicable requirement established by the Administrator pursuant to other authority of the Act (section 111, part C or D or any other authority of this Act), or a standard issued under State authority. The Administrator may specify in a specific standard under this part that facilities subject to other provisions under the Act need only comply with the provisions of that standard.
- (4) (i) Each relevant standard in this part 63 must identify explicitly whether each provision in this subpart A is or is not included in such relevant standard.
 - (ii) If a relevant part 63 standard incorporates the requirements of 40 CFR part 60, part 61 or other part 63 standards, the relevant part 63 standard must identify explicitly the applicability of each corresponding part 60, part 61, or other part 63 subpart A (General) provision.
 - (iii) The General Provisions in this subpart A do not apply to regulations developed pursuant to section 112(r) of the amended Act, unless otherwise specified in those regulations.
- (5) [Reserved]
- (6) To obtain the most current list of categories of sources to be regulated under section 112 of the Act, or to obtain the most recent regulation promulgation schedule established pursuant to section 112(e) of the Act, contact the Office of the Director, Emission Standards Division, Office of Air Quality Planning and Standards, U.S. EPA (MD-13), Research Triangle Park, North Carolina 27711.
- (7)-(9) [Reserved]
- (10) For the purposes of this part, time periods specified in days shall be measured in calendar days, even if the word “calendar” is absent, unless otherwise specified in an applicable requirement.
- (11) For the purposes of this part, if an explicit postmark deadline is not specified in an applicable requirement for the submittal of a notification, application, test plan, report, or other written

communication to the Administrator, the owner or operator shall postmark the submittal on or before the number of days specified in the applicable requirement. For example, if a notification must be submitted 15 days before a particular event is scheduled to take place, the notification shall be postmarked on or before 15 days preceding the event; likewise, if a notification must be submitted 15 days after a particular event takes place, the notification shall be postmarked on or before 15 days following the end of the event. The use of reliable non-Government mail carriers that provide indications of verifiable delivery of information required to be submitted to the Administrator, similar to the postmark provided by the U.S. Postal Service, or alternative means of delivery agreed to by the permitting authority, is acceptable.

(12) Notwithstanding time periods or postmark deadlines specified in this part for the submittal of information to the Administrator by an owner or operator, or the review of such information by the Administrator, such time periods or deadlines may be changed by mutual agreement between the owner or operator and the Administrator. Procedures governing the implementation of this provision are specified in § 63.9(i).

(b) Initial applicability determination for this part.

(1) The provisions of this part apply to the owner or operator of any stationary source that -

- (i) Emits or has the potential to emit any hazardous air pollutant listed in or pursuant to section 112(b) of the Act; and
- (ii) Is subject to any standard, limitation, prohibition, or other federally enforceable requirement established pursuant to this part.

(2) [Reserved]

(3) An owner or operator of a stationary source who is in the relevant source category and who determines that the source is not subject to a relevant standard or other requirement established under this part must keep a record as specified in § 63.10(b)(3).

(c) Applicability of this part after a relevant standard has been set under this part.

(1) If a relevant standard has been established under this part, the owner or operator of an affected source must comply with the provisions of that standard and of this subpart as provided in paragraph (a)(4) of this section.

(2) Except as provided in § 63.10(b)(3), if a relevant standard has been established under this part, the owner or operator of an affected source may be required to obtain a title V permit from a permitting authority in the State in which the source is located. Emission standards promulgated in this part for area sources pursuant to section 112(c)(3) of the Act will specify whether -

- (i) States will have the option to exclude area sources affected by that standard from the requirement to obtain a title V permit (i.e., the standard will exempt the category of area sources altogether from the permitting requirement);
- (ii) States will have the option to defer permitting of area sources in that category until the Administrator takes rulemaking action to determine applicability of the permitting requirements; or

(iii) If a standard fails to specify what the permitting requirements will be for area sources affected by such a standard, then area sources that are subject to the standard will be subject to the requirement to obtain a title V permit without any deferral.

(3)-(4) [Reserved]

(5) If an area source that otherwise would be subject to an emission standard or other requirement established under this part if it were a major source subsequently increases its emissions of hazardous air pollutants (or its potential to emit hazardous air pollutants) such that the source is a major source that is subject to the emission standard or other requirement, such source also shall be subject to the notification requirements of this subpart.

(6) A major source may become an area source at any time upon reducing its emissions of and potential to emit hazardous air pollutants, as defined in this subpart, to below the major source thresholds established in § 63.2, subject to the provisions in paragraphs (c)(6)(i) and (ii) of this section.

(i) A major source reclassifying to area source status is subject to the applicability of standards, compliance dates and notification requirements specified in (c)(6)(i)(A) of this section. An area source that previously was a major source and becomes a major source again is subject to the applicability of standards, compliance dates, and notification requirements specified in (c)(6)(i)(B) of this section:

(A) A major source reclassifying to area source status under this part remains subject to any applicable major source requirements established under this part until the reclassification becomes effective. After the reclassification becomes effective, the source is subject to any applicable area source requirements established under this part immediately, provided the compliance date for the area source requirements has passed. The owner or operator of a major source that becomes an area source subject to newly applicable area source requirements under this part must comply with the initial notification requirements pursuant to § 63.9(b). The owner or operator of a major source that becomes an area source must also provide to the Administrator any change in the information already provided under § 63.9(b) per § 63.9(j).

(B) An area source that previously was a major source under this part and that becomes a major source again is subject to the applicable major source requirements established under this part immediately upon becoming a major source again, provided the compliance date for the major source requirements has passed, notwithstanding any provision within the applicable subparts. The owner or operator of an area source that becomes a major source again must comply with the initial notification pursuant to § 63.9(b). The owner or operator must also provide to the Administrator any change in the information already provided under § 63.9(b) per § 63.9(j).

(ii) Becoming an area source does not absolve a source subject to an enforcement action or investigation for major source violations or infractions from the consequences of any actions occurring when the source was major. Becoming a major source does not absolve a source subject to an enforcement action or investigation for area source violations or infractions from the consequences of any actions occurring when the source was an area source.

(iii) After September 10, 2024, affected sources subject to the following 40 CFR part 63 subparts on September 10, 2024, must remain subject to those subparts, and any modifications thereafter, even if the source becomes an area source by reducing both its actual emissions and potential to emit hazardous air pollutants to below major source thresholds: F, G, H, I, L, R, X, CC, GG, II, JJ, KK, LL, MM, EEE, JJJ, LLL, MMM, RRR, UUU, FFFF, JJJJ, MMMM, PPPP, ZZZZ, CCCCC, DDDDD, FFFFF, IIIII, LLLLL, YYYYY, JJJJJ, EEEEEEE.

(d) [Reserved]

(e) If the Administrator promulgates an emission standard under section 112(d) or (h) of the Act that is applicable to a source subject to an emission limitation by permit established under section 112(j) of the Act, and the requirements under the section 112(j) emission limitation are substantially as effective as the promulgated emission standard, the owner or operator may request the permitting authority to revise the source's title V permit to reflect that the emission limitation in the permit satisfies the requirements of the promulgated emission standard. The process by which the permitting authority determines whether the section 112(j) emission limitation is substantially as effective as the promulgated emission standard must include, consistent with part 70 or 71 of this chapter, the opportunity for full public, EPA, and affected State review (including the opportunity for EPA's objection) prior to the permit revision being finalized. A negative determination by the permitting authority constitutes final action for purposes of review and appeal under the applicable title V operating permit program.

§ 63.2 Definitions.

The terms used in this part are defined in the Act or in this section as follows:

Act means the Clean Air Act (42 U.S.C. 7401 *et seq.*, as amended by Pub. L. 101-549, 104 Stat. 2399).

Actual emissions is defined in subpart D of this part for the purpose of granting a compliance extension for an early reduction of hazardous air pollutants.

Administrator means the Administrator of the United States Environmental Protection Agency or his or her authorized representative (e.g., a State that has been delegated the authority to implement the provisions of this part).

Affected source, for the purposes of this part, means the collection of equipment, activities, or both within a single contiguous area and under common control that is included in a section 112(c) source category or subcategory for which a section 112(d) standard or other relevant standard is established pursuant to section 112 of the Act. Each relevant standard will define the "affected source," as defined in this paragraph unless a different definition is warranted based on a published justification as to why this definition would result in significant administrative, practical, or implementation problems and why the different definition would resolve those problems. The term "affected source," as used in this part, is separate and distinct from any other use of that term in EPA regulations such as those implementing title IV of the Act. Affected source may be defined differently for part 63 than affected facility and stationary source in parts 60 and 61, respectively. This definition of "affected source," and the procedures for adopting an alternative definition of "affected source," shall apply to each section 112(d) standard for which the initial proposed rule is signed by the Administrator after June 30, 2002.

Alternative emission limitation means conditions established pursuant to sections 112(i)(5) or 112(i)(6) of the Act by the Administrator or by a State with an approved permit program.

Alternative emission standard means an alternative means of emission limitation that, after notice and opportunity for public comment, has been demonstrated by an owner or operator to the Administrator's satisfaction to achieve a reduction in emissions of any air pollutant at least equivalent to the reduction in emissions of such pollutant achieved under a relevant design, equipment, work practice, or operational emission standard, or combination thereof, established under this part pursuant to section 112(h) of the Act.

Alternative test method means any method of sampling and analyzing for an air pollutant that has been demonstrated to the Administrator's satisfaction, using Method 301 in appendix A of this part, to produce results adequate for the Administrator's determination that it may be used in place of a test method specified in this part.

Approved permit program means a State permit program approved by the Administrator as meeting the requirements of part 70 of this chapter or a Federal permit program established in this chapter pursuant to title V of the Act (42 U.S.C. 7661).

Area source means any stationary source of hazardous air pollutants that is not a major source as defined in this part.

Commenced means, with respect to construction or reconstruction of an affected source, that an owner or operator has undertaken a continuous program of construction or reconstruction or that an owner or operator has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of construction or reconstruction.

Compliance date means the date by which an affected source is required to be in compliance with a relevant standard, limitation, prohibition, or any federally enforceable requirement established by the Administrator (or a State with an approved permit program) pursuant to section 112 of the Act.

Compliance schedule means:

- (1) In the case of an affected source that is in compliance with all applicable requirements established under this part, a statement that the source will continue to comply with such requirements; or
- (2) In the case of an affected source that is required to comply with applicable requirements by a future date, a statement that the source will meet such requirements on a timely basis and, if required by an applicable requirement, a detailed schedule of the dates by which each step toward compliance will be reached; or
- (3) In the case of an affected source not in compliance with all applicable requirements established under this part, a schedule of remedial measures, including an enforceable sequence of actions or operations with milestones and a schedule for the submission of certified progress reports, where applicable, leading to compliance with a relevant standard, limitation, prohibition, or any federally enforceable requirement established pursuant to section 112 of the Act for which the affected source is not in compliance. This compliance schedule shall resemble and be at least as stringent as that contained in any judicial consent decree or administrative order to which the source is subject. Any such schedule of compliance shall be supplemental to, and shall not sanction noncompliance with, the applicable requirements on which it is based.

Construction means the on-site fabrication, erection, or installation of an affected source. Construction does not include the removal of all equipment comprising an affected source from an existing location and reinstallation of such equipment at a new location. The owner or operator of an existing affected source that is relocated may elect not to reinstall minor ancillary equipment including, but not limited to, piping, ductwork, and valves. However, removal and reinstallation of an affected source will be construed as

reconstruction if it satisfies the criteria for reconstruction as defined in this section. The costs of replacing minor ancillary equipment must be considered in determining whether the existing affected source is reconstructed.

Continuous emission monitoring system (CEMS) means the total equipment that may be required to meet the data acquisition and availability requirements of this part, used to sample, condition (if applicable), analyze, and provide a record of emissions.

Continuous monitoring system (CMS) is a comprehensive term that may include, but is not limited to, continuous emission monitoring systems, continuous opacity monitoring systems, continuous parameter monitoring systems, or other manual or automatic monitoring that is used for demonstrating compliance with an applicable regulation on a continuous basis as defined by the regulation.

Continuous opacity monitoring system (COMS) means a continuous monitoring system that measures the opacity of emissions.

Continuous parameter monitoring system means the total equipment that may be required to meet the data acquisition and availability requirements of this part, used to sample, condition (if applicable), analyze, and provide a record of process or control system parameters.

Effective date means:

- (1) With regard to an emission standard established under this part, the date of promulgation in the Federal Register of such standard; or
- (2) With regard to an alternative emission limitation or equivalent emission limitation determined by the Administrator (or a State with an approved permit program), the date that the alternative emission limitation or equivalent emission limitation becomes effective according to the provisions of this part.

Emission standard means a national standard, limitation, prohibition, or other regulation promulgated in a subpart of this part pursuant to sections 112(d), 112(h), or 112(f) of the Act.

Emissions averaging is a way to comply with the emission limitations specified in a relevant standard, whereby an affected source, if allowed under a subpart of this part, may create emission credits by reducing emissions from specific points to a level below that required by the relevant standard, and those credits are used to offset emissions from points that are not controlled to the level required by the relevant standard.

EPA means the United States Environmental Protection Agency.

Equivalent emission limitation means any maximum achievable control technology emission limitation or requirements which are applicable to a major source of hazardous air pollutants and are adopted by the Administrator (or a State with an approved permit program) on a case-by-case basis, pursuant to section 112(g) or (j) of the Act.

Excess emissions and continuous monitoring system performance report is a report that must be submitted periodically by an affected source in order to provide data on its compliance with relevant emission limits, operating parameters, and the performance of its continuous parameter monitoring systems.

Existing source means any affected source that is not a new source.

Federally enforceable means all limitations and conditions that are enforceable by the Administrator and citizens under the Act or that are enforceable under other statutes administered by the Administrator. Examples of federally enforceable limitations and conditions include, but are not limited to:

- (1) Emission standards, alternative emission standards, alternative emission limitations, and equivalent emission limitations established pursuant to section 112 of the Act as amended in 1990;
- (2) New source performance standards established pursuant to section 111 of the Act, and emission standards established pursuant to section 112 of the Act before it was amended in 1990;
- (3) All terms and conditions in a title V permit, including any provisions that limit a source's potential to emit, unless expressly designated as not federally enforceable;
- (4) Limitations and conditions that are part of an approved State Implementation Plan (SIP) or a Federal Implementation Plan (FIP);
- (5) Limitations and conditions that are part of a Federal construction permit issued under 40 CFR 52.21 or any construction permit issued under regulations approved by the EPA in accordance with 40 CFR part 51;
- (6) Limitations and conditions that are part of an operating permit where the permit and the permitting program pursuant to which it was issued meet all of the following criteria:
 - (i) The operating permit program has been submitted to and approved by EPA into a State implementation plan (SIP) under section 110 of the CAA;
 - (ii) The SIP imposes a legal obligation that operating permit holders adhere to the terms and limitations of such permits and provides that permits which do not conform to the operating permit program requirements and the requirements of EPA's underlying regulations may be deemed not "federally enforceable" by EPA;
 - (iii) The operating permit program requires that all emission limitations, controls, and other requirements imposed by such permits will be at least as stringent as any other applicable limitations and requirements contained in the SIP or enforceable under the SIP, and that the program may not issue permits that waive, or make less stringent, any limitations or requirements contained in or issued pursuant to the SIP, or that are otherwise "federally enforceable";
 - (iv) The limitations, controls, and requirements in the permit in question are permanent, quantifiable, and otherwise enforceable as a practical matter; and
 - (v) The permit in question was issued only after adequate and timely notice and opportunity for comment for EPA and the public.
- (7) Limitations and conditions in a State rule or program that has been approved by the EPA under subpart E of this part for the purposes of implementing and enforcing section 112; and
- (8) Individual consent agreements that the EPA has legal authority to create.

Fixed capital cost means the capital needed to provide all the depreciable components of an existing source.

Force majeure means, for purposes of § 63.7, an event that will be or has been caused by circumstances beyond the control of the affected facility, its contractors, or any entity controlled by the affected facility that prevents the owner or operator from complying with the regulatory requirement to conduct performance tests within the specified timeframe despite the affected facility's best efforts to fulfill the obligation. Examples of such

events are acts of nature, acts of war or terrorism, or equipment failure or safety hazard beyond the control of the affected facility.

Fugitive emissions means those emissions from a stationary source that could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening. Under section 112 of the Act, all fugitive emissions are to be considered in determining whether a stationary source is a major source.

Hazardous air pollutant means any air pollutant listed in or pursuant to section 112(b) of the Act.

Issuance of a part 70 permit will occur, if the State is the permitting authority, in accordance with the requirements of part 70 of this chapter and the applicable, approved State permit program. When the EPA is the permitting authority, issuance of a title V permit occurs immediately after the EPA takes final action on the final permit.

Major source means any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit considering controls, in the aggregate, 10 tons per year or more of any hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants, unless the Administrator establishes a lesser quantity, or in the case of radionuclides, different criteria from those specified in this sentence.

Malfunction means any sudden, infrequent, and not reasonably preventable failure of air pollution control and monitoring equipment, process equipment, or a process to operate in a normal or usual manner which causes, or has the potential to cause, the emission limitations in an applicable standard to be exceeded. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

Monitoring means the collection and use of measurement data or other information to control the operation of a process or pollution control device or to verify a work practice standard relative to assuring compliance with applicable requirements. Monitoring is composed of four elements:

- (1) Indicator(s) of performance - the parameter or parameters you measure or observe for demonstrating proper operation of the pollution control measures or compliance with the applicable emissions limitation or standard. Indicators of performance may include direct or predicted emissions measurements (including opacity), operational parametric values that correspond to process or control device (and capture system) efficiencies or emissions rates, and recorded findings of inspection of work practice activities, materials tracking, or design characteristics. Indicators may be expressed as a single maximum or minimum value, a function of process variables (for example, within a range of pressure drops), a particular operational or work practice status (for example, a damper position, completion of a waste recovery task, materials tracking), or an interdependency between two or among more than two variables.
- (2) Measurement techniques - the means by which you gather and record information of or about the indicators of performance. The components of the measurement technique include the detector type, location and installation specifications, inspection procedures, and quality assurance and quality control measures. Examples of measurement techniques include continuous emission monitoring systems, continuous opacity monitoring systems, continuous parametric monitoring systems, and manual inspections that include making records of process conditions or work practices.
- (3) Monitoring frequency - the number of times you obtain and record monitoring data over a specified time interval. Examples of monitoring frequencies include at least four points equally spaced for each hour for continuous emissions or parametric monitoring systems, at least every 10 seconds for continuous opacity

monitoring systems, and at least once per operating day (or week, month, etc.) for work practice or design inspections.

- (4) Averaging time - the period over which you average and use data to verify proper operation of the pollution control approach or compliance with the emissions limitation or standard. Examples of averaging time include a 3-hour average in units of the emissions limitation, a 30-day rolling average emissions value, a daily average of a control device operational parametric range, and an instantaneous alarm.

New affected source means the collection of equipment, activities, or both within a single contiguous area and under common control that is included in a section 112(c) source category or subcategory that is subject to a section 112(d) or other relevant standard for new sources. This definition of "new affected source," and the criteria to be utilized in implementing it, shall apply to each section 112(d) standard for which the initial proposed rule is signed by the Administrator after June 30, 2002. Each relevant standard will define the term "new affected source," which will be the same as the "affected source" unless a different collection is warranted based on consideration of factors including:

- (1) Emission reduction impacts of controlling individual sources versus groups of sources;
- (2) Cost effectiveness of controlling individual equipment;
- (3) Flexibility to accommodate common control strategies;
- (4) Cost/benefits of emissions averaging;
- (5) Incentives for pollution prevention;
- (6) Feasibility and cost of controlling processes that share common equipment (e.g., product recovery devices);
- (7) Feasibility and cost of monitoring; and
- (8) Other relevant factors.

New source means any affected source the construction or reconstruction of which is commenced after the Administrator first proposes a relevant emission standard under this part establishing an emission standard applicable to such source.

One-hour period, unless otherwise defined in an applicable subpart, means any 60-minute period commencing on the hour.

Opacity means the degree to which emissions reduce the transmission of light and obscure the view of an object in the background. For continuous opacity monitoring systems, opacity means the fraction of incident light that is attenuated by an optical medium.

Owner or operator means any person who owns, leases, operates, controls, or supervises a stationary source.

Performance audit means a procedure to analyze blind samples, the content of which is known by the Administrator, simultaneously with the analysis of performance test samples in order to provide a measure of test data quality.

Performance evaluation means the conduct of relative accuracy testing, calibration error testing, and other measurements used in validating the continuous monitoring system data.

Performance test means the collection of data resulting from the execution of a test method (usually three emission test runs) used to demonstrate compliance with a relevant emission standard as specified in the performance test section of the relevant standard.

Permit modification means a change to a title V permit as defined in regulations codified in this chapter to implement title V of the Act (42 U.S.C. 7661).

Permit program means a comprehensive State operating permit system established pursuant to title V of the Act (42 U.S.C. 7661) and regulations codified in part 70 of this chapter and applicable State regulations, or a comprehensive Federal operating permit system established pursuant to title V of the Act and regulations codified in this chapter.

Permit revision means any permit modification or administrative permit amendment to a title V permit as defined in regulations codified in this chapter to implement title V of the Act (42 U.S.C. 7661).

Permitting authority means:

- (1) The State air pollution control agency, local agency, other State agency, or other agency authorized by the Administrator to carry out a permit program under part 70 of this chapter; or
- (2) The Administrator, in the case of EPA-implemented permit programs under title V of the Act (42 U.S.C. 7661).

Pollution Prevention means *source reduction* as defined under the Pollution Prevention Act (42 U.S.C. 13101-13109). The definition is as follows:

(1) *Source reduction* is any practice that:

- (i) Reduces the amount of any hazardous substance, pollutant, or contaminant entering any waste stream or otherwise released into the environment (including fugitive emissions) prior to recycling, treatment, or disposal; and
- (ii) Reduces the hazards to public health and the environment associated with the release of such substances, pollutants, or contaminants.

(2) The term *source reduction* includes equipment or technology modifications, process or procedure modifications, reformulation or redesign of products, substitution of raw materials, and improvements in housekeeping, maintenance, training, or inventory control.

(3) The term *source reduction* does not include any practice that alters the physical, chemical, or biological characteristics or the volume of a hazardous substance, pollutant, or contaminant through a process or activity which itself is not integral to and necessary for the production of a product or the providing of a service.

Potential to emit means the maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the stationary source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is enforceable.

Reconstruction, unless otherwise defined in a relevant standard, means the replacement of components of an affected or a previously nonaffected source to such an extent that:

- (1) The fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable new source; and
- (2) It is technologically and economically feasible for the reconstructed source to meet the relevant standard(s) established by the Administrator (or a State) pursuant to section 112 of the Act. Upon reconstruction, an affected source, or a stationary source that becomes an affected source, is subject to relevant standards for new sources, including compliance dates, irrespective of any change in emissions of hazardous air pollutants from that source.

Regulation promulgation schedule means the schedule for the promulgation of emission standards under this part, established by the Administrator pursuant to section 112(e) of the Act and published in the Federal Register.

Relevant standard means:

- (1) An emission standard;
- (2) An alternative emission standard;
- (3) An alternative emission limitation; or
- (4) An equivalent emission limitation established pursuant to section 112 of the Act that applies to the collection of equipment, activities, or both regulated by such standard or limitation. A relevant standard may include or consist of a design, equipment, work practice, or operational requirement, or other measure, process, method, system, or technique (including prohibition of emissions) that the Administrator (or a State) establishes for new or existing sources to which such standard or limitation applies. Every relevant standard established pursuant to section 112 of the Act includes subpart A of this part, as provided by § 63.1(a)(4), and all applicable appendices of this part or of other parts of this chapter that are referenced in that standard.

Responsible official means one of the following:

- (1) For a corporation: A president, secretary, treasurer, or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities and either:
 - (i) The facilities employ more than 250 persons or have gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars); or
 - (ii) The delegation of authority to such representative is approved in advance by the Administrator.
- (2) For a partnership or sole proprietorship: a general partner or the proprietor, respectively.
- (3) For a municipality, State, Federal, or other public agency: either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of the EPA).
- (4) For affected sources (as defined in this part) applying for or subject to a title V permit: “responsible official” shall have the same meaning as defined in part 70 or Federal title V regulations in this chapter (42 U.S.C. 7661), whichever is applicable.

Run means one of a series of emission or other measurements needed to determine emissions for a representative operating period or cycle as specified in this part.

Shutdown means the cessation of operation of an affected source or portion of an affected source for any purpose.

Six-minute period means, with respect to opacity determinations, any one of the 10 equal parts of a 1-hour period.

Source at a Performance Track member facility means a major or area source located at a facility which has been accepted by EPA for membership in the Performance Track Program (as described at www.epa.gov/PerformanceTrack) and is still a member of the Program. The Performance Track Program is a voluntary program that encourages continuous environmental improvement through the use of environmental management systems, local community outreach, and measurable results.

Standard conditions means a temperature of 293 K (68 °F) and a pressure of 101.3 kilopascals (29.92 in. Hg).

Startup means the setting in operation of an affected source or portion of an affected source for any purpose.

State means all non-Federal authorities, including local agencies, interstate associations, and State-wide programs, that have delegated authority to implement:

- (1) The provisions of this part and/or
- (2) the permit program established under part 70 of this chapter. The term State shall have its conventional meaning where clear from the context.

Stationary source means any building, structure, facility, or installation which emits or may emit any air pollutant.

Test method means the validated procedure for sampling, preparing, and analyzing for an air pollutant specified in a relevant standard as the performance test procedure. The test method may include methods described in an appendix of this chapter, test methods incorporated by reference in this part, or methods validated for an application through procedures in Method 301 of appendix A of this part.

Title V permit means any permit issued, renewed, or revised pursuant to Federal or State regulations established to implement title V of the Act (42 U.S.C. 7661). A title V permit issued by a State permitting authority is called a part 70 permit in this part.

Visible emission means the observation of an emission of opacity or optical density above the threshold of vision.

Working day means any day on which Federal Government offices (or State government offices for a State that has obtained delegation under section 112(l)) are open for normal business. Saturdays, Sundays, and official Federal (or where delegated, State) holidays are not working days.

§ 63.3 Units and abbreviations.

Used in this part are abbreviations and symbols of units of measure. These are defined as follows:

(a) *System International (SI) units of measure:*

A = ampere

g = gram

Hz = hertz

J = joule

°K = degree Kelvin

kg = kilogram

l = liter

m = meter

m³ = cubic meter

mg = milligram = 10⁻³ gram

ml = milliliter = 10⁻³ liter

mm = millimeter = 10⁻³ meter

Mg = megagram = 10⁶ gram = metric ton

MJ = megajoule

mol = mole

N = newton

ng = nanogram = 10⁻⁹ gram

nm = nanometer = 10⁻⁹ meter

Pa = pascal

s = second

V = volt

W = watt

Ω = ohm

μg = microgram = 10⁻⁶ gram

μl = microliter = 10⁻⁶ liter

(b) *Other units of measure:*

Btu = British thermal unit

°C = degree Celsius (centigrade)

cal = calorie

cfm = cubic feet per minute

cc = cubic centimeter

cu ft = cubic feet

d = day

dcf = dry cubic feet

dcm = dry cubic meter

dscf = dry cubic feet at standard conditions

dscm = dry cubic meter at standard conditions

eq = equivalent

°F degree Fahrenheit

ft = feet

ft² = square feet

ft³ = cubic feet

gal = gallon

gr = grain

g-eq = gram equivalent

g-mole = gram mole

hr = hour

in. = inch

in. H₂ O = inches of water

K = 1,000

kcal = kilocalorie

lb = pound

lpm = liter per minute

meq = milliequivalent

min = minute

MW = molecular weight

oz = ounces

ppb = parts per billion

ppbw = parts per billion by weight

ppbv = parts per billion by volume

ppm = parts per million

ppmw = parts per million by weight

ppmv = parts per million by volume

psia = pounds per square inch absolute

psig = pounds per square inch gage

°R = degree Rankine

scf = cubic feet at standard conditions

scfh = cubic feet at standard conditions per hour

scm = cubic meter at standard conditions

scmm = cubic meter at standard conditions per minute

sec = second

sq ft = square feet

std = at standard conditions

v/v = volume per volume

yd² = square yards

yr = year

(c) *Miscellaneous:*

act = actual

avg = average

I.D. = inside diameter

M = molar

N = normal

O.D. = outside diameter

% = percent

§ 63.4 Prohibited activities and circumvention.

(a) Prohibited activities.

- (1) No owner or operator subject to the provisions of this part must operate any affected source in violation of the requirements of this part. Affected sources subject to and in compliance with either an extension of compliance or an exemption from compliance are not in violation of the requirements of this part. An extension of compliance can be granted by the Administrator under this part; by a State with an approved permit program; or by the President under section 112(i)(4) of the Act.
- (2) No owner or operator subject to the provisions of this part shall fail to keep records, notify, report, or revise reports as required under this part.
- (3)-(5) [Reserved]

(b) *Circumvention*. No owner or operator subject to the provisions of this part shall build, erect, install, or use any article, machine, equipment, or process to conceal an emission that would otherwise constitute noncompliance with a relevant standard. Such concealment includes, but is not limited to -

- (1) The use of diluents to achieve compliance with a relevant standard based on the concentration of a pollutant in the effluent discharged to the atmosphere;
- (2) The use of gaseous diluents to achieve compliance with a relevant standard for visible emissions;
and

(c) *Fragmentation*. Fragmentation after November 15, 1990 which divides ownership of an operation, within the same facility among various owners where there is no real change in control, will not affect applicability. The owner and operator must not use fragmentation or phasing of reconstruction activities (i.e., intentionally dividing reconstruction into multiple parts for purposes of avoiding new source requirements) to avoid becoming subject to new source requirements.

§ 63.5 Preconstruction review and notification requirements.

(a) *Applicability*.

(1) This section implements the preconstruction review requirements of section 112(i)(1). After the effective date of a relevant standard, promulgated pursuant to section 112(d), (f), or (h) of the Act, under this part, the preconstruction review requirements in this section apply to the owner or operator of new affected sources and reconstructed affected sources that are major-emitting as specified in this section. New and reconstructed affected sources that commence construction or reconstruction before the effective date of a relevant standard are not subject to the preconstruction review requirements specified in paragraphs (b)(3), (d), and (e) of this section.

(2) This section includes notification requirements for new affected sources and reconstructed affected sources that are not major-emitting affected sources and that are or become subject to a relevant promulgated emission standard after the effective date of a relevant standard promulgated under this part.

(b) *Requirements for existing, newly constructed, and reconstructed sources*.

(1) A new affected source for which construction commences after proposal of a relevant standard is subject to relevant standards for new affected sources, including compliance dates. An affected source for which reconstruction commences after proposal of a relevant standard is subject to relevant standards for new sources, including compliance dates, irrespective of any change in emissions of hazardous air pollutants from that source.

(2) [Reserved]

(3) After the effective date of any relevant standard promulgated by the Administrator under this part, no person may, without obtaining written approval in advance from the Administrator in accordance with the procedures specified in paragraphs (d) and (e) of this section, do any of the following:

- (i) Construct a new affected source that is major-emitting and subject to such standard;
- (ii) Reconstruct an affected source that is major-emitting and subject to such standard; or

(iii) Reconstruct a major source such that the source becomes an affected source that is major-emitting and subject to the standard.

(4) After the effective date of any relevant standard promulgated by the Administrator under this part, an owner or operator who constructs a new affected source that is not major-emitting or reconstructs an affected source that is not major-emitting that is subject to such standard, or reconstructs a source such that the source becomes an affected source subject to the standard, must notify the Administrator of the intended construction or reconstruction. The notification must be submitted in accordance with the procedures in § 63.9(b).

(5) [Reserved]

(6) After the effective date of any relevant standard promulgated by the Administrator under this part, equipment added (or a process change) to an affected source that is within the scope of the definition of affected source under the relevant standard must be considered part of the affected source and subject to all provisions of the relevant standard established for that affected source.

(c) [Reserved]

(d) *Application for approval of construction or reconstruction.* The provisions of this paragraph implement section 112(i)(1) of the Act.

(1) *General application requirements.*

(i) An owner or operator who is subject to the requirements of paragraph (b)(3) of this section must submit to the Administrator an application for approval of the construction or reconstruction. The application must be submitted as soon as practicable before actual construction or reconstruction begins. The application for approval of construction or reconstruction may be used to fulfill the initial notification requirements of § 63.9(b)(5). The owner or operator may submit the application for approval well in advance of the date actual construction or reconstruction begins in order to ensure a timely review by the Administrator and that the planned date to begin will not be delayed.

(ii) A separate application shall be submitted for each construction or reconstruction. Each application for approval of construction or reconstruction shall include at a minimum:

(A) The applicant's name and address;

(B) A notification of intention to construct a new major affected source or make any physical or operational change to a major affected source that may meet or has been determined to meet the criteria for a reconstruction, as defined in § 63.2 or in the relevant standard;

(C) The address (i.e., physical location) or proposed address of the source;

(D) An identification of the relevant standard that is the basis of the application;

(E) The expected date of the beginning of actual construction or reconstruction;

(F) The expected completion date of the construction or reconstruction;

(G) [Reserved]

(H) The type and quantity of hazardous air pollutants emitted by the source, reported in units and averaging times and in accordance with the test methods specified in the relevant standard, or if actual emissions data are not yet available, an estimate of the type and quantity of hazardous air pollutants expected to be emitted by the source reported in units and averaging times specified in the relevant standard. The owner or operator may submit percent reduction information if a relevant standard is established in terms of percent reduction. However, operating parameters, such as flow rate, shall be included in the submission to the extent that they demonstrate performance and compliance; and

(I) [Reserved]

(J) Other information as specified in paragraphs (d)(2) and (d)(3) of this section.

(iii) An owner or operator who submits estimates or preliminary information in place of the actual emissions data and analysis required in paragraphs (d)(1)(ii)(H) and (d)(2) of this section shall submit the actual, measured emissions data and other correct information as soon as available but no later than with the notification of compliance status required in § 63.9(h) (see § 63.9(h)(5)).

(2) *Application for approval of construction.* Each application for approval of construction must include, in addition to the information required in paragraph (d)(1)(ii) of this section, technical information describing the proposed nature, size, design, operating design capacity, and method of operation of the source, including an identification of each type of emission point for each type of hazardous air pollutant that is emitted (or could reasonably be anticipated to be emitted) and a description of the planned air pollution control system (equipment or method) for each emission point. The description of the equipment to be used for the control of emissions must include each control device for each hazardous air pollutant and the estimated control efficiency (percent) for each control device. The description of the method to be used for the control of emissions must include an estimated control efficiency (percent) for that method. Such technical information must include calculations of emission estimates in sufficient detail to permit assessment of the validity of the calculations.

(3) *Application for approval of reconstruction.* Each application for approval of reconstruction shall include, in addition to the information required in paragraph (d)(1)(ii) of this section -

- (i) A brief description of the affected source and the components that are to be replaced;
- (ii) A description of present and proposed emission control systems (i.e., equipment or methods). The description of the equipment to be used for the control of emissions shall include each control device for each hazardous air pollutant and the estimated control efficiency (percent) for each control device. The description of the method to be used for the control of emissions shall include an estimated control efficiency (percent) for that method. Such technical information shall include calculations of emission estimates in sufficient detail to permit assessment of the validity of the calculations;
- (iii) An estimate of the fixed capital cost of the replacements and of constructing a comparable entirely new source;
- (iv) The estimated life of the affected source after the replacements; and

(v) A discussion of any economic or technical limitations the source may have in complying with relevant standards or other requirements after the proposed replacements. The discussion shall be sufficiently detailed to demonstrate to the Administrator's satisfaction that the technical or economic limitations affect the source's ability to comply with the relevant standard and how they do so.

(vi) If in the application for approval of reconstruction the owner or operator designates the affected source as a reconstructed source and declares that there are no economic or technical limitations to prevent the source from complying with all relevant standards or other requirements, the owner or operator need not submit the information required in paragraphs (d)(3)(iii) through (d)(3)(v) of this section.

(4) *Additional information.* The Administrator may request additional relevant information after the submittal of an application for approval of construction or reconstruction.

(e) *Approval of construction or reconstruction.*

(1) (i) If the Administrator determines that, if properly constructed, or reconstructed, and operated, a new or existing source for which an application under paragraph (d) of this section was submitted will not cause emissions in violation of the relevant standard(s) and any other federally enforceable requirements, the Administrator will approve the construction or reconstruction.

(ii) In addition, in the case of reconstruction, the Administrator's determination under this paragraph will be based on:

(A) The fixed capital cost of the replacements in comparison to the fixed capital cost that would be required to construct a comparable entirely new source;

(B) The estimated life of the source after the replacements compared to the life of a comparable entirely new source;

(C) The extent to which the components being replaced cause or contribute to the emissions from the source; and

(D) Any economic or technical limitations on compliance with relevant standards that are inherent in the proposed replacements.

(2) (i) The Administrator will notify the owner or operator in writing of approval or intention to deny approval of construction or reconstruction within 60 calendar days after receipt of sufficient information to evaluate an application submitted under paragraph (d) of this section. The 60-day approval or denial period will begin after the owner or operator has been notified in writing that his/her application is complete. The Administrator will notify the owner or operator in writing of the status of his/her application, that is, whether the application contains sufficient information to make a determination, within 30 calendar days after receipt of the original application and within 30 calendar days after receipt of any supplementary information that is submitted.

(ii) When notifying the owner or operator that his/her application is not complete, the Administrator will specify the information needed to complete the application and provide notice of opportunity for the applicant to present, in writing, within 30 calendar days after

he/she is notified of the incomplete application, additional information or arguments to the Administrator to enable further action on the application.

(3) Before denying any application for approval of construction or reconstruction, the Administrator will notify the applicant of the Administrator's intention to issue the denial together with -

- (i) Notice of the information and findings on which the intended denial is based; and
- (ii) Notice of opportunity for the applicant to present, in writing, within 30 calendar days after he/she is notified of the intended denial, additional information or arguments to the Administrator to enable further action on the application.

(4) A final determination to deny any application for approval will be in writing and will specify the grounds on which the denial is based. The final determination will be made within 60 calendar days of presentation of additional information or arguments (if the application is complete), or within 60 calendar days after the final date specified for presentation if no presentation is made.

(5) Neither the submission of an application for approval nor the Administrator's approval of construction or reconstruction shall -

- (i) Relieve an owner or operator of legal responsibility for compliance with any applicable provisions of this part or with any other applicable Federal, State, or local requirement; or
- (ii) Prevent the Administrator from implementing or enforcing this part or taking any other action under the Act.

(f) *Approval of construction or reconstruction based on prior State preconstruction review.*

(1) Preconstruction review procedures that a State utilizes for other purposes may also be utilized for purposes of this section if the procedures are substantially equivalent to those specified in this section. The Administrator will approve an application for construction or reconstruction specified in paragraphs (b)(3) and (d) of this section if the owner or operator of a new affected source or reconstructed affected source, who is subject to such requirement meets the following conditions:

- (i) The owner or operator of the new affected source or reconstructed affected source has undergone a preconstruction review and approval process in the State in which the source is (or would be) located and has received a federally enforceable construction permit that contains a finding that the source will meet the relevant promulgated emission standard, if the source is properly built and operated.
- (ii) Provide a statement from the State or other evidence (such as State regulations) that it considered the factors specified in paragraph (e)(1) of this section.

(2) The owner or operator must submit to the Administrator the request for approval of construction or reconstruction under this paragraph (f)(2) no later than the application deadline specified in paragraph (d)(1) of this section (see also § 63.9(b)(2)). The owner or operator must include in the request information sufficient for the Administrator's determination. The Administrator will evaluate the owner or operator's request in accordance with the procedures specified in paragraph (e) of this section. The Administrator may request additional relevant information after the submittal of a request for approval of construction or reconstruction under this paragraph (f)(2).

§ 63.6 Compliance with standards and maintenance requirements.

(a) Applicability.

(1) The requirements in this section apply to the owner or operator of affected sources for which any relevant standard has been established pursuant to section 112 of the Act and the applicability of such requirements is set out in accordance with § 63.1(a)(4) unless -

(i) The Administrator (or a State with an approved permit program) has granted an extension of compliance consistent with paragraph (i) of this section; or

(ii) The President has granted an exemption from compliance with any relevant standard in accordance with section 112(i)(4) of the Act.

(2) If an area source that otherwise would be subject to an emission standard or other requirement established under this part if it were a major source subsequently increases its emissions of hazardous air pollutants (or its potential to emit hazardous air pollutants) such that the source is a major source, such source shall be subject to the relevant emission standard or other requirement.

(b) Compliance dates for new and reconstructed sources.

(1) Except as specified in paragraphs (b)(3) and (4) of this section, the owner or operator of a new or reconstructed affected source for which construction or reconstruction commences after proposal of a relevant standard that has an initial startup before the effective date of a relevant standard established under this part pursuant to section 112(d), (f), or (h) of the Act must comply with such standard not later than the standard's effective date.

(2) Except as specified in paragraphs (b)(3) and (4) of this section, the owner or operator of a new or reconstructed affected source that has an initial startup after the effective date of a relevant standard established under this part pursuant to section 112(d), (f), or (h) of the Act must comply with such standard upon startup of the source.

(3) The owner or operator of an affected source for which construction or reconstruction is commenced after the proposal date of a relevant standard established under this part pursuant to section 112(d), 112(f), or 112(h) of the Act but before the effective date (that is, promulgation) of such standard shall comply with the relevant emission standard not later than the date 3 years after the effective date if:

(i) The promulgated standard (that is, the relevant standard) is more stringent than the proposed standard; for purposes of this paragraph, a finding that controls or compliance methods are "more stringent" must include control technologies or performance criteria and compliance or compliance assurance methods that are different but are substantially equivalent to those required by the promulgated rule, as determined by the Administrator (or his or her authorized representative); and

(ii) The owner or operator complies with the standard as proposed during the 3-year period immediately after the effective date.

(4) The owner or operator of an affected source for which construction or reconstruction is commenced after the proposal date of a relevant standard established pursuant to section 112(d) of the Act but before the proposal date of a relevant standard established pursuant to section 112(f) shall

not be required to comply with the section 112(f) emission standard until the date 10 years after the date construction or reconstruction is commenced, except that, if the section 112(f) standard is promulgated more than 10 years after construction or reconstruction is commenced, the owner or operator must comply with the standard as provided in paragraphs (b)(1) and (2) of this section.

(5) The owner or operator of a new source that is subject to the compliance requirements of paragraph (b)(3) or (4) of this section must notify the Administrator in accordance with § 63.9(d)

(6) [Reserved]

(7) When an area source increases its emissions of (or its potential to emit) hazardous air pollutants such that the source becomes a major source, the portion of the facility that meets the definition of a new affected source must comply with all requirements of that standard applicable to new sources. The source owner or operator must comply with the relevant standard upon startup.

(c) Compliance dates for existing sources.

(1) After the effective date of a relevant standard established under this part pursuant to section 112(d) or 112(h) of the Act, the owner or operator of an existing source shall comply with such standard by the compliance date established by the Administrator in the applicable subpart(s) of this part, except as provided in § 63.1(c)(6)(i). Except as otherwise provided for in section 112 of the Act, in no case will the compliance date established for an existing source in an applicable subpart of this part exceed 3 years after the effective date of such standard.

(2) If an existing source is subject to a standard established under this part pursuant to section 112(f) of the Act, the owner or operator must comply with the standard by the date 90 days after the standard's effective date, or by the date specified in an extension granted to the source by the Administrator under paragraph (i)(4)(ii) of this section, whichever is later.

(3)-(4) [Reserved]

(5) Except as provided in paragraph (b)(7) of this section, the owner or operator of an area source that increases its emissions of (or its potential to emit) hazardous air pollutants such that the source becomes a major source and meets the definition of an existing source in the applicable major source standard shall be subject to relevant standards for existing sources. Except as provided in paragraph § 63.1(c)(6)(i)(B), such sources must comply by the date specified in the standards for existing area sources that become major sources. If no such compliance date is specified in the standards, the source shall have a period of time to comply with the relevant emission standard that is equivalent to the compliance period specified in the relevant standard for existing sources in existence at the time the standard becomes effective.

(d) [Reserved]

(e) Operation and maintenance requirements.

(1) (i) At all times, including periods of startup, shutdown, and malfunction, the owner or operator must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. During a period of startup, shutdown, or malfunction, this general duty to minimize emissions requires that the owner or operator reduce emissions from the affected source to

the greatest extent which is consistent with safety and good air pollution control practices. The general duty to minimize emissions during a period of startup, shutdown, or malfunction does not require the owner or operator to achieve emission levels that would be required by the applicable standard at other times if this is not consistent with safety and good air pollution control practices, nor does it require the owner or operator to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures (including the startup, shutdown, and malfunction plan required in paragraph (e)(3) of this section), review of operation and maintenance records, and inspection of the source.

(ii) Malfunctions must be corrected as soon as practicable after their occurrence. To the extent that an unexpected event arises during a startup, shutdown, or malfunction, an owner or operator must comply by minimizing emissions during such a startup, shutdown, and malfunction event consistent with safety and good air pollution control practices.

(iii) Operation and maintenance requirements established pursuant to section 112 of the Act are enforceable independent of emissions limitations or other requirements in relevant standards.

(2) [Reserved]

(3) *Startup, shutdown, and malfunction plan.*

(i) The owner or operator of an affected source must develop a written startup, shutdown, and malfunction plan that describes, in detail, procedures for operating and maintaining the source during periods of startup, shutdown, and malfunction; and a program of corrective action for malfunctioning process, air pollution control, and monitoring equipment used to comply with the relevant standard. The startup, shutdown, and malfunction plan does not need to address any scenario that would not cause the source to exceed an applicable emission limitation in the relevant standard. This plan must be developed by the owner or operator by the source's compliance date for that relevant standard. The purpose of the startup, shutdown, and malfunction plan is to -

(A) Ensure that, at all times, the owner or operator operates and maintains each affected source, including associated air pollution control and monitoring equipment, in a manner which satisfies the general duty to minimize emissions established by paragraph (e)(1)(i) of this section;

(B) Ensure that owners or operators are prepared to correct malfunctions as soon as practicable after their occurrence in order to minimize excess emissions of hazardous air pollutants; and

(C) Reduce the reporting burden associated with periods of startup, shutdown, and malfunction (including corrective action taken to restore malfunctioning process and air pollution control equipment to its normal or usual manner of operation).

(ii) [Reserved]

(iii) When actions taken by the owner or operator during a startup or shutdown (and the startup or shutdown causes the source to exceed any applicable emission limitation in the relevant emission standards), or malfunction (including actions taken to correct a malfunction) are consistent with the procedures specified in the affected source's startup, shutdown, and malfunction plan, the owner or operator must keep records for that event which demonstrate that the procedures specified in the plan were followed. These records may take the form of a "checklist," or other effective form of recordkeeping that confirms conformance with the startup, shutdown, and malfunction plan and describes the actions taken for that event. In addition, the owner or operator must keep records of these events as specified in paragraph 63.10(b), including records of the occurrence and duration of each startup or shutdown (if the startup or shutdown causes the source to exceed any applicable emission limitation in the relevant emission standards), or malfunction of operation and each malfunction of the air pollution control and monitoring equipment. Furthermore, the owner or operator shall confirm that actions taken during the relevant reporting period during periods of startup, shutdown, and malfunction were consistent with the affected source's startup, shutdown and malfunction plan in the semiannual (or more frequent) startup, shutdown, and malfunction report required in § 63.10(d)(5).

(iv) If an action taken by the owner or operator during a startup, shutdown, or malfunction (including an action taken to correct a malfunction) is not consistent with the procedures specified in the affected source's startup, shutdown, and malfunction plan, and the source exceeds any applicable emission limitation in the relevant emission standard, then the owner or operator must record the actions taken for that event and must report such actions within 2 working days after commencing actions inconsistent with the plan, followed by a letter within 7 working days after the end of the event, in accordance with § 63.10(d)(5) (unless the owner or operator makes alternative reporting arrangements, in advance, with the Administrator).

(v) The owner or operator must maintain at the affected source a current startup, shutdown, and malfunction plan and must make the plan available upon request for inspection and copying by the Administrator. In addition, if the startup, shutdown, and malfunction plan is subsequently revised as provided in paragraph (e)(3)(viii) of this section, the owner or operator must maintain at the affected source each previous (i.e., superseded) version of the startup, shutdown, and malfunction plan, and must make each such previous version available for inspection and copying by the Administrator for a period of 5 years after revision of the plan. If at any time after adoption of a startup, shutdown, and malfunction plan the affected source ceases operation or is otherwise no longer subject to the provisions of this part, the owner or operator must retain a copy of the most recent plan for 5 years from the date the source ceases operation or is no longer subject to this part and must make the plan available upon request for inspection and copying by the Administrator. The Administrator may at any time request in writing that the owner or operator submit a copy of any startup, shutdown, and malfunction plan (or a portion thereof) which is maintained at the affected source or in the possession of the owner or operator. Upon receipt of such a request, the owner or operator must promptly submit a copy of the requested plan (or a portion thereof) to the Administrator. The owner or operator may elect to submit the required copy of any startup, shutdown, and malfunction plan to the Administrator in an electronic format. If the owner or operator claims that any portion of

such a startup, shutdown, and malfunction plan is confidential business information entitled to protection from disclosure under section 114(c) of the Act or 40 CFR 2.301, the material which is claimed as confidential must be clearly designated in the submission.

(vi) To satisfy the requirements of this section to develop a startup, shutdown, and malfunction plan, the owner or operator may use the affected source's standard operating procedures (SOP) manual, or an Occupational Safety and Health Administration (OSHA) or other plan, provided the alternative plans meet all the requirements of this section and are made available for inspection or submitted when requested by the Administrator.

(vii) Based on the results of a determination made under paragraph (e)(1)(i) of this section, the Administrator may require that an owner or operator of an affected source make changes to the startup, shutdown, and malfunction plan for that source. The Administrator must require appropriate revisions to a startup, shutdown, and malfunction plan, if the Administrator finds that the plan:

- (A) Does not address a startup, shutdown, or malfunction event that has occurred;
- (B) Fails to provide for the operation of the source (including associated air pollution control and monitoring equipment) during a startup, shutdown, or malfunction event in a manner consistent with the general duty to minimize emissions established by paragraph (e)(1)(i) of this section;
- (C) Does not provide adequate procedures for correcting malfunctioning process and/or air pollution control and monitoring equipment as quickly as practicable; or
- (D) Includes an event that does not meet the definition of startup, shutdown, or malfunction listed in § 63.2.

(viii) The owner or operator may periodically revise the startup, shutdown, and malfunction plan for the affected source as necessary to satisfy the requirements of this part or to reflect changes in equipment or procedures at the affected source. Unless the permitting authority provides otherwise, the owner or operator may make such revisions to the startup, shutdown, and malfunction plan without prior approval by the Administrator or the permitting authority. However, each such revision to a startup, shutdown, and malfunction plan must be reported in the semiannual report required by § 63.10(d)(5). If the startup, shutdown, and malfunction plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction but was not included in the startup, shutdown, and malfunction plan at the time the owner or operator developed the plan, the owner or operator must revise the startup, shutdown, and malfunction plan within 45 days after the event to include detailed procedures for operating and maintaining the source during similar malfunction events and a program of corrective action for similar malfunctions of process or air pollution control and monitoring equipment. In the event that the owner or operator makes any revision to the startup, shutdown, and malfunction plan which alters the scope of the activities at the source which are deemed to be a startup, shutdown, or malfunction, or otherwise modifies the applicability of any emission limit, work practice requirement, or other requirement in a standard established under this part, the revised plan shall not take effect until after the owner or operator has provided a written notice describing the revision to the permitting authority.

(ix) The title V permit for an affected source must require that the owner or operator develop a startup, shutdown, and malfunction plan which conforms to the provisions of this part, but may do so by citing to the relevant subpart or subparagraphs of paragraph (e) of this section. However, any revisions made to the startup, shutdown, and malfunction plan in accordance with the procedures established by this part shall not be deemed to constitute permit revisions under part 70 or part 71 of this chapter and the elements of the startup, shutdown, and malfunction plan shall not be considered an applicable requirement as defined in § 70.2 and § 71.2 of this chapter. Moreover, none of the procedures specified by the startup, shutdown, and malfunction plan for an affected source shall be deemed to fall within the permit shield provision in section 504(f) of the Act.

(f) *Compliance with nonopacity emission standards -*

(1) *Applicability.* The non-opacity emission standards set forth in this part shall apply at all times except as otherwise specified in an applicable subpart. If a startup, shutdown, or malfunction of one portion of an affected source does not affect the ability of particular emission points within other portions of the affected source to comply with the non-opacity emission standards set forth in this part, then that emission point must still be required to comply with the non-opacity emission standards and other applicable requirements.

(2) *Methods for determining compliance.*

(i) The Administrator will determine compliance with nonopacity emission standards in this part based on the results of performance tests conducted according to the procedures in § 63.7, unless otherwise specified in an applicable subpart of this part.

(ii) The Administrator will determine compliance with nonopacity emission standards in this part by evaluation of an owner or operator's conformance with operation and maintenance requirements, including the evaluation of monitoring data, as specified in § 63.6(e) and applicable subparts of this part.

(iii) If an affected source conducts performance testing at startup to obtain an operating permit in the State in which the source is located, the results of such testing may be used to demonstrate compliance with a relevant standard if -

(A) The performance test was conducted within a reasonable amount of time before an initial performance test is required to be conducted under the relevant standard;

(B) The performance test was conducted under representative operating conditions for the source;

(C) The performance test was conducted and the resulting data were reduced using EPA-approved test methods and procedures, as specified in § 63.7(e) of this subpart; and

(D) The performance test was appropriately quality-assured, as specified in § 63.7(c).

(iv) The Administrator will determine compliance with design, equipment, work practice, or operational emission standards in this part by review of records, inspection of the source, and other procedures specified in applicable subparts of this part.

(v) The Administrator will determine compliance with design, equipment, work practice, or operational emission standards in this part by evaluation of an owner or operator's conformance with operation and maintenance requirements, as specified in paragraph (e) of this section and applicable subparts of this part.

(3) *Finding of compliance.* The Administrator will make a finding concerning an affected source's compliance with a non-opacity emission standard, as specified in paragraphs (f)(1) and (2) of this section, upon obtaining all the compliance information required by the relevant standard (including the written reports of performance test results, monitoring results, and other information, if applicable), and information available to the Administrator pursuant to paragraph (e)(1)(i) of this section.

(g) Use of an alternative nonopacity emission standard.

(1) If, in the Administrator's judgment, an owner or operator of an affected source has established that an alternative means of emission limitation will achieve a reduction in emissions of a hazardous air pollutant from an affected source at least equivalent to the reduction in emissions of that pollutant from that source achieved under any design, equipment, work practice, or operational emission standard, or combination thereof, established under this part pursuant to section 112(h) of the Act, the Administrator will publish in the Federal Register a notice permitting the use of the alternative emission standard for purposes of compliance with the promulgated standard. Any Federal Register notice under this paragraph shall be published only after the public is notified and given the opportunity to comment. Such notice will restrict the permission to the stationary source(s) or category(ies) of sources from which the alternative emission standard will achieve equivalent emission reductions. The Administrator will condition permission in such notice on requirements to assure the proper operation and maintenance of equipment and practices required for compliance with the alternative emission standard and other requirements, including appropriate quality assurance and quality control requirements, that are deemed necessary.

(2) An owner or operator requesting permission under this paragraph shall, unless otherwise specified in an applicable subpart, submit a proposed test plan or the results of testing and monitoring in accordance with § 63.7 and § 63.8, a description of the procedures followed in testing or monitoring, and a description of pertinent conditions during testing or monitoring. Any testing or monitoring conducted to request permission to use an alternative nonopacity emission standard shall be appropriately quality assured and quality controlled, as specified in § 63.7 and § 63.8.

(3) The Administrator may establish general procedures in an applicable subpart that accomplish the requirements of paragraphs (g)(1) and (g)(2) of this section.

(h) Compliance with opacity and visible emission standards -

(1) *Applicability.* The opacity and visible emission standards set forth in this part must apply at all times except as otherwise specified in an applicable subpart. If a startup, shutdown, or malfunction of one portion of an affected source does not affect the ability of particular emission points within other portions of the affected source to comply with the opacity and visible emission standards set forth in this part, then that emission point shall still be required to comply with the opacity and visible emission standards and other applicable requirements.

(2) *Methods for determining compliance.*

(i) The Administrator will determine compliance with opacity and visible emission standards in this part based on the results of the test method specified in an applicable subpart. Whenever a continuous opacity monitoring system (COMS) is required to be installed to determine compliance with numerical opacity emission standards in this part, compliance with opacity emission standards in this part shall be determined by using the results from the COMS. Whenever an opacity emission test method is not specified, compliance with opacity emission standards in this part shall be determined by conducting observations in accordance with Test Method 9 in appendix A of part 60 of this chapter or the method specified in paragraph (h)(7)(ii) of this section. Whenever a visible emission test method is not specified, compliance with visible emission standards in this part shall be determined by conducting observations in accordance with Test Method 22 in appendix A of part 60 of this chapter.

(ii) [Reserved]

(iii) If an affected source undergoes opacity or visible emission testing at startup to obtain an operating permit in the State in which the source is located, the results of such testing may be used to demonstrate compliance with a relevant standard if -

(A) The opacity or visible emission test was conducted within a reasonable amount of time before a performance test is required to be conducted under the relevant standard;

(B) The opacity or visible emission test was conducted under representative operating conditions for the source;

(C) The opacity or visible emission test was conducted and the resulting data were reduced using EPA-approved test methods and procedures, as specified in § 63.7(e); and

(D) The opacity or visible emission test was appropriately quality-assured, as specified in § 63.7(c) of this section.

(3) [Reserved]

(4) *Notification of opacity or visible emission observations.* The owner or operator of an affected source shall notify the Administrator in writing of the anticipated date for conducting opacity or visible emission observations in accordance with § 63.9(f), if such observations are required for the source by a relevant standard.

(5) *Conduct of opacity or visible emission observations.* When a relevant standard under this part includes an opacity or visible emission standard, the owner or operator of an affected source shall comply with the following:

(i) For the purpose of demonstrating initial compliance, opacity or visible emission observations shall be conducted concurrently with the initial performance test required in § 63.7 unless one of the following conditions applies:

(A) If no performance test under § 63.7 is required, opacity or visible emission observations shall be conducted within 60 days after achieving the maximum production rate at which a new or reconstructed source will be operated, but not later than 120 days after initial startup of the source, or within 120 days after the effective

date of the relevant standard in the case of new sources that start up before the standard's effective date. If no performance test under § 63.7 is required, opacity or visible emission observations shall be conducted within 120 days after the compliance date for an existing or modified source; or

(B) If visibility or other conditions prevent the opacity or visible emission observations from being conducted concurrently with the initial performance test required under § 63.7, or within the time period specified in paragraph (h)(5)(i)(A) of this section, the source's owner or operator shall reschedule the opacity or visible emission observations as soon after the initial performance test, or time period, as possible, but not later than 30 days thereafter, and shall advise the Administrator of the rescheduled date. The rescheduled opacity or visible emission observations shall be conducted (to the extent possible) under the same operating conditions that existed during the initial performance test conducted under § 63.7. The visible emissions observer shall determine whether visibility or other conditions prevent the opacity or visible emission observations from being made concurrently with the initial performance test in accordance with procedures contained in Test Method 9 or Test Method 22 in appendix A of part 60 of this chapter.

(ii) For the purpose of demonstrating initial compliance, the minimum total time of opacity observations shall be 3 hours (30 6-minute averages) for the performance test or other required set of observations (e.g., for fugitive-type emission sources subject only to an opacity emission standard).

(iii) The owner or operator of an affected source to which an opacity or visible emission standard in this part applies shall conduct opacity or visible emission observations in accordance with the provisions of this section, record the results of the evaluation of emissions, and report to the Administrator the opacity or visible emission results in accordance with the provisions of § 63.10(d).

(iv) [Reserved]

(v) Opacity readings of portions of plumes that contain condensed, uncombined water vapor shall not be used for purposes of determining compliance with opacity emission standards.

(6) *Availability of records.* The owner or operator of an affected source shall make available, upon request by the Administrator, such records that the Administrator deems necessary to determine the conditions under which the visual observations were made and shall provide evidence indicating proof of current visible observer emission certification.

(7) *Use of a continuous opacity monitoring system.*

(i) The owner or operator of an affected source required to use a continuous opacity monitoring system (COMS) shall record the monitoring data produced during a performance test required under § 63.7 and shall furnish the Administrator a written report of the monitoring results in accordance with the provisions of § 63.10(e)(4).

(ii) Whenever an opacity emission test method has not been specified in an applicable subpart, or an owner or operator of an affected source is required to conduct Test Method 9

observations (see appendix A of part 60 of this chapter), the owner or operator may submit, for compliance purposes, COMS data results produced during any performance test required under § 63.7 in lieu of Method 9 data. If the owner or operator elects to submit COMS data for compliance with the opacity emission standard, he or she shall notify the Administrator of that decision, in writing, simultaneously with the notification under § 63.7(b) of the date the performance test is scheduled to begin. Once the owner or operator of an affected source has notified the Administrator to that effect, the COMS data results will be used to determine opacity compliance during subsequent performance tests required under § 63.7, unless the owner or operator notifies the Administrator in writing to the contrary not later than with the notification under § 63.7(b) of the date the subsequent performance test is scheduled to begin.

(iii) For the purposes of determining compliance with the opacity emission standard during a performance test required under § 63.7 using COMS data, the COMS data shall be reduced to 6-minute averages over the duration of the mass emission performance test.

(iv) The owner or operator of an affected source using a COMS for compliance purposes is responsible for demonstrating that he/she has complied with the performance evaluation requirements of § 63.8(e), that the COMS has been properly maintained, operated, and data quality-assured, as specified in § 63.8(c) and § 63.8(d), and that the resulting data have not been altered in any way.

(v) Except as provided in paragraph (h)(7)(ii) of this section, the results of continuous monitoring by a COMS that indicate that the opacity at the time visual observations were made was not in excess of the emission standard are probative but not conclusive evidence of the actual opacity of an emission, provided that the affected source proves that, at the time of the alleged violation, the instrument used was properly maintained, as specified in § 63.8(c), and met Performance Specification 1 in appendix B of part 60 of this chapter, and that the resulting data have not been altered in any way.

(8) *Finding of compliance.* The Administrator will make a finding concerning an affected source's compliance with an opacity or visible emission standard upon obtaining all the compliance information required by the relevant standard (including the written reports of the results of the performance tests required by § 63.7, the results of Test Method 9 or another required opacity or visible emission test method, the observer certification required by paragraph (h)(6) of this section, and the continuous opacity monitoring system results, whichever is/are applicable) and any information available to the Administrator needed to determine whether proper operation and maintenance practices are being used.

(9) *Adjustment to an opacity emission standard.*

(i) If the Administrator finds under paragraph (h)(8) of this section that an affected source is in compliance with all relevant standards for which initial performance tests were conducted under § 63.7, but during the time such performance tests were conducted fails to meet any relevant opacity emission standard, the owner or operator of such source may petition the Administrator to make appropriate adjustment to the opacity emission standard for the affected source. Until the Administrator notifies the owner or operator of the appropriate adjustment, the relevant opacity emission standard remains applicable.

(ii) The Administrator may grant such a petition upon a demonstration by the owner or operator that -

(A) The affected source and its associated air pollution control equipment were operated and maintained in a manner to minimize the opacity of emissions during the performance tests;

(B) The performance tests were performed under the conditions established by the Administrator; and

(C) The affected source and its associated air pollution control equipment were incapable of being adjusted or operated to meet the relevant opacity emission standard.

(iii) The Administrator will establish an adjusted opacity emission standard for the affected source meeting the above requirements at a level at which the source will be able, as indicated by the performance and opacity tests, to meet the opacity emission standard at all times during which the source is meeting the mass or concentration emission standard. The Administrator will promulgate the new opacity emission standard in the Federal Register.

(iv) After the Administrator promulgates an adjusted opacity emission standard for an affected source, the owner or operator of such source shall be subject to the new opacity emission standard, and the new opacity emission standard shall apply to such source during any subsequent performance tests.

(i) *Extension of compliance with emission standards.*

(1) Until an extension of compliance has been granted by the Administrator (or a State with an approved permit program) under this paragraph, the owner or operator of an affected source subject to the requirements of this section shall comply with all applicable requirements of this part.

(2) *Extension of compliance for early reductions and other reductions -*

(i) *Early reductions.* Pursuant to section 112(i)(5) of the Act, if the owner or operator of an existing source demonstrates that the source has achieved a reduction in emissions of hazardous air pollutants in accordance with the provisions of subpart D of this part, the Administrator (or the State with an approved permit program) will grant the owner or operator an extension of compliance with specific requirements of this part, as specified in subpart D.

(ii) *Other reductions.* Pursuant to section 112(i)(6) of the Act, if the owner or operator of an existing source has installed best available control technology (BACT) (as defined in section 169(3) of the Act) or technology required to meet a lowest achievable emission rate (LAER) (as defined in section 171 of the Act) prior to the promulgation of an emission standard in this part applicable to such source and the same pollutant (or stream of pollutants) controlled pursuant to the BACT or LAER installation, the Administrator will grant the owner or operator an extension of compliance with such emission standard that will apply until the date 5 years after the date on which such installation was achieved, as determined by the Administrator.

(3) *Request for extension of compliance.* Paragraphs (i)(4) through (i)(7) of this section concern requests for an extension of compliance with a relevant standard under this part (except requests for

an extension of compliance under paragraph (i)(2)(i) of this section will be handled through procedures specified in subpart D of this part).

(4) (i) (A) The owner or operator of an existing source who is unable to comply with a relevant standard established under this part pursuant to section 112(d) of the Act may request that the Administrator (or a State, when the State has an approved part 70 permit program and the source is required to obtain a part 70 permit under that program, or a State, when the State has been delegated the authority to implement and enforce the emission standard for that source) grant an extension allowing the source up to 1 additional year to comply with the standard, if such additional period is necessary for the installation of controls. An additional extension of up to 3 years may be added for mining waste operations, if the 1-year extension of compliance is insufficient to dry and cover mining waste in order to reduce emissions of any hazardous air pollutant. The owner or operator of an affected source who has requested an extension of compliance under this paragraph and who is otherwise required to obtain a title V permit shall apply for such permit or apply to have the source's title V permit revised to incorporate the conditions of the extension of compliance. The conditions of an extension of compliance granted under this paragraph will be incorporated into the affected source's title V permit according to the provisions of part 70 or Federal title V regulations in this chapter (42 U.S.C. 7661), whichever are applicable.

(B) Any request under this paragraph for an extension of compliance with a relevant standard must be submitted in writing to the appropriate authority no later than 120 days prior to the affected source's compliance date (as specified in paragraphs (b) and (c) of this section), except as provided for in paragraph (i)(4)(i)(C) of this section. Nonfrivolous requests submitted under this paragraph will stay the applicability of the rule as to the emission points in question until such time as the request is granted or denied. A denial will be effective as of the date of denial. Emission standards established under this part may specify alternative dates for the submittal of requests for an extension of compliance if alternatives are appropriate for the source categories affected by those standards.

(C) An owner or operator may submit a compliance extension request after the date specified in paragraph (i)(4)(i)(B) of this section provided the need for the compliance extension arose after that date, and before the otherwise applicable compliance date and the need arose due to circumstances beyond reasonable control of the owner or operator. This request must include, in addition to the information required in paragraph (i)(6)(i) of this section, a statement of the reasons additional time is needed and the date when the owner or operator first learned of the problems. Nonfrivolous requests submitted under this paragraph will stay the applicability of the rule as to the emission points in question until such time as the request is granted or denied. A denial will be effective as of the original compliance date.

(ii) The owner or operator of an existing source unable to comply with a relevant standard established under this part pursuant to section 112(f) of the Act may request that the Administrator grant an extension allowing the source up to 2 years after the standard's effective date to comply with the standard. The Administrator may grant such an extension if he/she finds that such additional period is necessary for the installation of controls and that

steps will be taken during the period of the extension to ensure that the health of persons will be protected from imminent endangerment. Any request for an extension of compliance with a relevant standard under this paragraph must be submitted in writing to the Administrator not later than 90 calendar days after the effective date of the relevant standard.

(5) The owner or operator of an existing source that has installed BACT or technology required to meet LAER [as specified in paragraph (i)(2)(ii) of this section] prior to the promulgation of a relevant emission standard in this part may request that the Administrator grant an extension allowing the source 5 years from the date on which such installation was achieved, as determined by the Administrator, to comply with the standard. Any request for an extension of compliance with a relevant standard under this paragraph shall be submitted in writing to the Administrator not later than 120 days after the promulgation date of the standard. The Administrator may grant such an extension if he or she finds that the installation of BACT or technology to meet LAER controls the same pollutant (or stream of pollutants) that would be controlled at that source by the relevant emission standard.

(6) (i) The request for a compliance extension under paragraph (i)(4) of this section shall include the following information:

(A) A description of the controls to be installed to comply with the standard;

(B) A compliance schedule, including the date by which each step toward compliance will be reached. At a minimum, the list of dates shall include:

(1) The date by which on-site construction, installation of emission control equipment, or a process change is planned to be initiated; and

(2) The date by which final compliance is to be achieved.

(3) The date by which on-site construction, installation of emission control equipment, or a process change is to be completed; and

(4) The date by which final compliance is to be achieved;

(C)-(D)

(ii) The request for a compliance extension under paragraph (i)(5) of this section shall include all information needed to demonstrate to the Administrator's satisfaction that the installation of BACT or technology to meet LAER controls the same pollutant (or stream of pollutants) that would be controlled at that source by the relevant emission standard.

(7) Advice on requesting an extension of compliance may be obtained from the Administrator (or the State with an approved permit program).

(8) *Approval of request for extension of compliance.* Paragraphs (i)(9) through (i)(14) of this section concern approval of an extension of compliance requested under paragraphs (i)(4) through (i)(6) of this section.

(9) Based on the information provided in any request made under paragraphs (i)(4) through (i)(6) of this section, or other information, the Administrator (or the State with an approved permit program) may grant an extension of compliance with an emission standard, as specified in paragraphs (i)(4) and (i)(5) of this section.

(10) The extension will be in writing and will -

- (i) Identify each affected source covered by the extension;
- (ii) Specify the termination date of the extension;
- (iii) Specify the dates by which steps toward compliance are to be taken, if appropriate;
- (iv) Specify other applicable requirements to which the compliance extension applies (e.g., performance tests); and
- (v) (A) Under paragraph (i)(4), specify any additional conditions that the Administrator (or the State) deems necessary to assure installation of the necessary controls and protection of the health of persons during the extension period; or
(B) Under paragraph (i)(5), specify any additional conditions that the Administrator deems necessary to assure the proper operation and maintenance of the installed controls during the extension period.

(11) The owner or operator of an existing source that has been granted an extension of compliance under paragraph (i)(10) of this section may be required to submit to the Administrator (or the State with an approved permit program) progress reports indicating whether the steps toward compliance outlined in the compliance schedule have been reached. The contents of the progress reports and the dates by which they shall be submitted will be specified in the written extension of compliance granted under paragraph (i)(10) of this section.

(12) (i) The Administrator (or the State with an approved permit program) will notify the owner or operator in writing of approval or intention to deny approval of a request for an extension of compliance within 30 calendar days after receipt of sufficient information to evaluate a request submitted under paragraph (i)(4)(i) or (i)(5) of this section. The Administrator (or the State) will notify the owner or operator in writing of the status of his/her application, that is, whether the application contains sufficient information to make a determination, within 30 calendar days after receipt of the original application and within 30 calendar days after receipt of any supplementary information that is submitted. The 30-day approval or denial period will begin after the owner or operator has been notified in writing that his/her application is complete.

(ii) When notifying the owner or operator that his/her application is not complete, the Administrator will specify the information needed to complete the application and provide notice of opportunity for the applicant to present, in writing, within 30 calendar days after he/she is notified of the incomplete application, additional information or arguments to the Administrator to enable further action on the application.

(iii) Before denying any request for an extension of compliance, the Administrator (or the State with an approved permit program) will notify the owner or operator in writing of the Administrator's (or the State's) intention to issue the denial, together with -

- (A) Notice of the information and findings on which the intended denial is based; and
- (B) Notice of opportunity for the owner or operator to present in writing, within 15 calendar days after he/she is notified of the intended denial, additional information or arguments to the Administrator (or the State) before further action on the request.

(iv) The Administrator's final determination to deny any request for an extension will be in writing and will set forth the specific grounds on which the denial is based. The final determination will be made within 30 calendar days after presentation of additional information or argument (if the application is complete), or within 30 calendar days after the final date specified for the presentation if no presentation is made.

(13) (i) The Administrator will notify the owner or operator in writing of approval or intention to deny approval of a request for an extension of compliance within 30 calendar days after receipt of sufficient information to evaluate a request submitted under paragraph (i)(4)(ii) of this section. The 30-day approval or denial period will begin after the owner or operator has been notified in writing that his/her application is complete. The Administrator (or the State) will notify the owner or operator in writing of the status of his/her application, that is, whether the application contains sufficient information to make a determination, within 15 calendar days after receipt of the original application and within 15 calendar days after receipt of any supplementary information that is submitted.

(ii) When notifying the owner or operator that his/her application is not complete, the Administrator will specify the information needed to complete the application and provide notice of opportunity for the applicant to present, in writing, within 15 calendar days after he/she is notified of the incomplete application, additional information or arguments to the Administrator to enable further action on the application.

(iii) Before denying any request for an extension of compliance, the Administrator will notify the owner or operator in writing of the Administrator's intention to issue the denial, together with -

(A) Notice of the information and findings on which the intended denial is based; and

(B) Notice of opportunity for the owner or operator to present in writing, within 15 calendar days after he/she is notified of the intended denial, additional information or arguments to the Administrator before further action on the request.

(iv) A final determination to deny any request for an extension will be in writing and will set forth the specific grounds on which the denial is based. The final determination will be made within 30 calendar days after presentation of additional information or argument (if the application is complete), or within 30 calendar days after the final date specified for the presentation if no presentation is made.

(14) The Administrator (or the State with an approved permit program) may terminate an extension of compliance at an earlier date than specified if any specification under paragraph (i)(10)(iii) or (iv) of this section is not met. Upon a determination to terminate, the Administrator will notify, in writing, the owner or operator of the Administrator's determination to terminate, together with:

(i) Notice of the reason for termination; and

(ii) Notice of opportunity for the owner or operator to present in writing, within 15 calendar days after he/she is notified of the determination to terminate additional information or arguments to the Administrator before further action on the termination.

(iii) A final determination to terminate an extension of compliance will be in writing and will set forth the specific grounds on which the termination is based. The final determination will be made within 30

calendar days after presentation of additional information or arguments, or within 30 calendar days after the final date specified for the presentation if no presentation is made.

(15) [Reserved]

(16) The granting of an extension under this section shall not abrogate the Administrator's authority under section 114 of the Act.

(j) *Exemption from compliance with emission standards.* The President may exempt any stationary source from compliance with any relevant standard established pursuant to section 112 of the Act for a period of not more than 2 years if the President determines that the technology to implement such standard is not available and that it is in the national security interests of the United States to do so. An exemption under this paragraph may be extended for 1 or more additional periods, each period not to exceed 2 years.

§ 63.7 Performance testing requirements.

(a) *Applicability and performance test dates.*

(1) The applicability of this section is set out in § 63.1(a)(4).

(2) Except as provided in paragraph (a)(4) of this section, if required to do performance testing by a relevant standard, and unless a waiver of performance testing is obtained under this section or the conditions of paragraph (c)(3)(ii)(B) of this section apply, the owner or operator of the affected source must perform such tests within 180 days of the compliance date for such source.

(i)-(viii) [Reserved]

(ix) Except as provided in paragraph (a)(4) of this section, when an emission standard promulgated under this part is more stringent than the standard proposed (see § 63.6(b)(3)), the owner or operator of a new or reconstructed source subject to that standard for which construction or reconstruction is commenced between the proposal and promulgation dates of the standard shall comply with performance testing requirements within 180 days after the standard's effective date, or within 180 days after startup of the source, whichever is later. If the promulgated standard is more stringent than the proposed standard, the owner or operator may choose to demonstrate compliance with either the proposed or the promulgated standard. If the owner or operator chooses to comply with the proposed standard initially, the owner or operator shall conduct a second performance test within 3 years and 180 days after the effective date of the standard, or after startup of the source, whichever is later, to demonstrate compliance with the promulgated standard.

(3) The Administrator may require an owner or operator to conduct performance tests at the affected source at any other time when the action is authorized by section 114 of the Act.

(4) If a force majeure is about to occur, occurs, or has occurred for which the affected owner or operator intends to assert a claim of force majeure:

(i) The owner or operator shall notify the Administrator, in writing as soon as practicable following the date the owner or operator first knew, or through due diligence should have known that the event may cause or caused a delay in testing beyond the regulatory deadline specified in paragraph (a)(2) or (a)(3) of this section, or elsewhere in this part, but the notification must occur before the performance test deadline unless the initial force majeure or

a subsequent force majeure event delays the notice, and in such cases, the notification shall occur as soon as practicable.

(ii) The owner or operator shall provide to the Administrator a written description of the force majeure event and a rationale for attributing the delay in testing beyond the regulatory deadline to the force majeure; describe the measures taken or to be taken to minimize the delay; and identify a date by which the owner or operator proposes to conduct the performance test. The performance test shall be conducted as soon as practicable after the force majeure occurs.

(iii) The decision as to whether or not to grant an extension to the performance test deadline is solely within the discretion of the Administrator. The Administrator will notify the owner or operator in writing of approval or disapproval of the request for an extension as soon as practicable.

(iv) Until an extension of the performance test deadline has been approved by the Administrator under paragraphs (a)(4)(i), (a)(4)(ii), and (a)(4)(iii) of this section, the owner or operator of the affected facility remains strictly subject to the requirements of this part.

(b) Notification of performance test.

(1) The owner or operator of an affected source must notify the Administrator in writing of his or her intention to conduct a performance test at least 60 calendar days before the performance test is initially scheduled to begin to allow the Administrator, upon request, to review and approve the site-specific test plan required under paragraph (c) of this section and to have an observer present during the test.

(2) In the event the owner or operator is unable to conduct the performance test on the date specified in the notification requirement specified in paragraph (b)(1) of this section due to unforeseeable circumstances beyond his or her control, the owner or operator must notify the Administrator as soon as practicable and without delay prior to the scheduled performance test date and specify the date when the performance test is rescheduled. This notification of delay in conducting the performance test shall not relieve the owner or operator of legal responsibility for compliance with any other applicable provisions of this part or with any other applicable Federal, State, or local requirement, nor will it prevent the Administrator from implementing or enforcing this part or taking any other action under the Act.

(c) Quality assurance program.

(1) The results of the quality assurance program required in this paragraph will be considered by the Administrator when he/she determines the validity of a performance test.

(2) (i) *Submission of site-specific test plan.* Before conducting a required performance test, the owner or operator of an affected source shall develop and, if requested by the Administrator, shall submit a site-specific test plan to the Administrator for approval. The test plan shall include a test program summary, the test schedule, data quality objectives, and both an internal and external quality assurance (QA) program. Data quality objectives are the pretest expectations of precision, accuracy, and completeness of data.

(ii) The internal QA program shall include, at a minimum, the activities planned by routine operators and analysts to provide an assessment of test data precision; an example of internal QA is the sampling and analysis of replicate samples.

(iii) The performance testing shall include a test method performance audit (PA) during the performance test. The PAs consist of blind audit samples supplied by an accredited audit sample provider and analyzed during the performance test in order to provide a measure of test data bias. Gaseous audit samples are designed to audit the performance of the sampling system as well as the analytical system and must be collected by the sampling system during the compliance test just as the compliance samples are collected. If a liquid or solid audit sample is designed to audit the sampling system, it must also be collected by the sampling system during the compliance test. If multiple sampling systems or sampling trains are used during the compliance test for any of the test methods, the tester is only required to use one of the sampling systems per method to collect the audit sample. The audit sample must be analyzed by the same analyst using the same analytical reagents and analytical system and at the same time as the compliance samples. Retests are required when there is a failure to produce acceptable results for an audit sample. However, if the audit results do not affect the compliance or noncompliance status of the affected facility, the compliance authority may waive the reanalysis requirement, further audits, or retests and accept the results of the compliance test. Acceptance of the test results shall constitute a waiver of the reanalysis requirement, further audits, or retests. The compliance authority may also use the audit sample failure and the compliance test results as evidence to determine the compliance or noncompliance status of the affected facility. A blind audit sample is a sample whose value is known only to the sample provider and is not revealed to the tested facility until after they report the measured value of the audit sample. For pollutants that exist in the gas phase at ambient temperature, the audit sample shall consist of an appropriate concentration of the pollutant in air or nitrogen that can be introduced into the sampling system of the test method at or near the same entry point as a sample from the emission source. If no gas phase audit samples are available, an acceptable alternative is a sample of the pollutant in the same matrix that would be produced when the sample is recovered from the sampling system as required by the test method. For samples that exist only in a liquid or solid form at ambient temperature, the audit sample shall consist of an appropriate concentration of the pollutant in the same matrix that would be produced when the sample is recovered from the sampling system as required by the test method. An accredited audit sample provider (AASP) is an organization that has been accredited to prepare audit samples by an independent, third party accrediting body.

(A) The source owner, operator, or representative of the tested facility shall obtain an audit sample, if commercially available, from an AASP for each test method used for regulatory compliance purposes. No audit samples are required for the following test methods: Methods 3A and 3C of appendix A-3 of part 60 of this chapter; Methods 6C, 7E, 9, and 10 of appendix A-4 of part 60; Methods 18 and 19 of appendix A-6 of part 60; Methods 20, 22, and 25A of appendix A-7 of part 60; Methods 30A and 30B of appendix A-8 of part 60; and Methods 303, 318, 320, and 321 of appendix A of this part. If multiple sources at a single facility are tested during a compliance test event, only one audit sample is required for each method used during a compliance test. The

compliance authority responsible for the compliance test may waive the requirement to include an audit sample if they believe that an audit sample is not necessary.

“Commercially available” means that two or more independent AASPs have blind audit samples available for purchase. If the source owner, operator, or representative cannot find an audit sample for a specific method, the owner, operator, or representative shall consult the EPA Web site at the following URL, www.epa.gov/ttn/emc, to confirm whether there is a source that can supply an audit sample for that method. If the EPA Web site does not list an available audit sample at least 60 days prior to the beginning of the compliance test, the source owner, operator, or representative shall not be required to include an audit sample as part of the quality assurance program for the compliance test. When ordering an audit sample, the source owner, operator, or representative shall give the sample provider an estimate for the concentration of each pollutant that is emitted by the source or the estimated concentration of each pollutant based on the permitted level and the name, address, and phone number of the compliance authority. The source owner, operator, or representative shall report the results for the audit sample along with a summary of the emission test results for the audited pollutant to the compliance authority and shall report the results of the audit sample to the AASP. The source owner, operator, or representative shall make both reports at the same time and in the same manner or shall report to the compliance authority first and then report to the AASP. If the method being audited is a method that allows the samples to be analyzed in the field and the tester plans to analyze the samples in the field, the tester may analyze the audit samples prior to collecting the emission samples provided a representative of the compliance authority is present at the testing site. The tester may request, and the compliance authority may grant a waiver to the requirement that a representative of the compliance authority must be present at the testing site during the field analysis of an audit sample. The source owner, operator, or representative may report the results of the audit sample to the compliance authority and then report the results of the audit sample to the AASP prior to collecting any emission samples. The test protocol and final test report shall document whether an audit sample was ordered and utilized and the pass/fail results as applicable.

(B) An AASP shall have and shall prepare, analyze, and report the true value of audit samples in accordance with a written technical criteria document that describes how audit samples will be prepared and distributed in a manner that will ensure the integrity of the audit sample program. An acceptable technical criteria document shall contain standard operating procedures for all of the following operations:

- (1) Preparing the sample;
- (2) Confirming the true concentration of the sample;
- (3) Defining the acceptance limits for the results from a well-qualified tester. This procedure must use well established statistical methods to analyze historical results from well qualified testers. The acceptance limits shall be set so that there is 95 percent confidence that 90 percent of well qualified labs will produce future results that are within the acceptance limit range;

- (4) Providing the opportunity for the compliance authority to comment on the selected concentration level for an audit sample;
- (5) Distributing the sample to the user in a manner that guarantees that the true value of the sample is unknown to the user;
- (6) Recording the measured concentration reported by the user and determining if the measured value is within acceptable limits;
- (7) Reporting the results from each audit sample in a timely manner to the compliance authority and to the source owner, operator, or representative by the AASP. The AASP shall make both reports at the same time and in the same manner or shall report to the compliance authority first and then report to the source owner, operator, or representative. The results shall include the name of the facility tested, the date on which the compliance test was conducted, the name of the company performing the sample collection, the name of the company that analyzed the compliance samples including the audit sample, the measured result for the audit sample, and whether the testing company passed or failed the audit. The AASP shall report the true value of the audit sample to the compliance authority. The AASP may report the true value to the source owner, operator, or representative if the AASP's operating plan ensures that no laboratory will receive the same audit sample twice.
- (8) Evaluating the acceptance limits of samples at least once every two years to determine in consultation with the voluntary consensus standard body if they should be changed.
- (9) Maintaining a database, accessible to the compliance authorities, of results from the audit that shall include the name of the facility tested, the date on which the compliance test was conducted, the name of the company performing the sample collection, the name of the company that analyzed the compliance samples including the audit sample, the measured result for the audit sample, the true value of the audit sample, the acceptance range for the measured value, and whether the testing company passed or failed the audit.

(C) The accrediting body shall have a written technical criteria document that describes how it will ensure that the AASP is operating in accordance with the AASP technical criteria document that describes how audit samples are to be prepared and distributed. This document shall contain standard operating procedures for all of the following operations:

- (1) Checking audit samples to confirm their true value as reported by the AASP.
- (2) Performing technical systems audits of the AASP's facilities and operating procedures at least once every two years.
- (3) Providing standards for use by the voluntary consensus standard body to approve the accrediting body that will accredit the audit sample providers.

(D) The technical criteria documents for the accredited sample providers and the accrediting body shall be developed through a public process guided by a voluntary consensus standards body (VCSB). The VCSB shall operate in accordance with the procedures and requirements in the Office of Management and Budget *Circular A-119*. A copy of Circular A-119 is available upon request by writing the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th Street, NW.,

Washington, DC 20503, by calling (202) 395-6880 or downloading online at http://standards.gov/standards_gov/a119.cfm. The VCSB shall approve all accrediting bodies. The Administrator will review all technical criteria documents. If the technical criteria documents do not meet the minimum technical requirements in paragraphs (c)(2)(iii)(B) through (C) of this section, the technical criteria documents are not acceptable and the proposed audit sample program is not capable of producing audit samples of sufficient quality to be used in a compliance test. All acceptable technical criteria documents shall be posted on the EPA Web site at the following URL, <http://www.epa.gov/ttn/emc>.

(iv) The owner or operator of an affected source shall submit the site-specific test plan to the Administrator upon the Administrator's request at least 60 calendar days before the performance test is scheduled to take place, that is, simultaneously with the notification of intention to conduct a performance test required under paragraph (b) of this section, or on a mutually agreed upon date.

(v) The Administrator may request additional relevant information after the submittal of a site-specific test plan.

(3) Approval of site-specific test plan.

(i) The Administrator will notify the owner or operator of approval or intention to deny approval of the site-specific test plan (if review of the site-specific test plan is requested) within 30 calendar days after receipt of the original plan and within 30 calendar days after receipt of any supplementary information that is submitted under paragraph (c)(3)(i)(B) of this section. Before disapproving any site-specific test plan, the Administrator will notify the applicant of the Administrator's intention to disapprove the plan together with -

(A) Notice of the information and findings on which the intended disapproval is based; and

(B) Notice of opportunity for the owner or operator to present, within 30 calendar days after he/she is notified of the intended disapproval, additional information to the Administrator before final action on the plan.

(ii) In the event that the Administrator fails to approve or disapprove the site-specific test plan within the time period specified in paragraph (c)(3)(i) of this section, the following conditions shall apply:

(A) If the owner or operator intends to demonstrate compliance using the test method(s) specified in the relevant standard or with only minor changes to those tests methods (see paragraph (e)(2)(i) of this section), the owner or operator must conduct the performance test within the time specified in this section using the specified method(s);

(B) If the owner or operator intends to demonstrate compliance by using an alternative to any test method specified in the relevant standard, the owner or operator is authorized to conduct the performance test using an alternative test method after the Administrator approves the use of the alternative method when the Administrator

approves the site-specific test plan (if review of the site-specific test plan is requested) or after the alternative method is approved (see paragraph (f) of this section). However, the owner or operator is authorized to conduct the performance test using an alternative method in the absence of notification of approval 45 days after submission of the site-specific test plan or request to use an alternative method. The owner or operator is authorized to conduct the performance test within 60 calendar days after he/she is authorized to demonstrate compliance using an alternative test method. Notwithstanding the requirements in the preceding three sentences, the owner or operator may proceed to conduct the performance test as required in this section (without the Administrator's prior approval of the site-specific test plan) if he/she subsequently chooses to use the specified testing and monitoring methods instead of an alternative.

(iii) Neither the submission of a site-specific test plan for approval, nor the Administrator's approval or disapproval of a plan, nor the Administrator's failure to approve or disapprove a plan in a timely manner shall -

(A) Relieve an owner or operator of legal responsibility for compliance with any applicable provisions of this part or with any other applicable Federal, State, or local requirement; or

(B) Prevent the Administrator from implementing or enforcing this part or taking any other action under the Act.

(d) *Performance testing facilities.* If required to do performance testing, the owner or operator of each new source and, at the request of the Administrator, the owner or operator of each existing source, shall provide performance testing facilities as follows:

(1) Sampling ports adequate for test methods applicable to such source. This includes:

(i) Constructing the air pollution control system such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and procedures; and

(ii) Providing a stack or duct free of cyclonic flow during performance tests, as demonstrated by applicable test methods and procedures;

(2) Safe sampling platform(s);

(3) Safe access to sampling platform(s);

(4) Utilities for sampling and testing equipment; and

(5) Any other facilities that the Administrator deems necessary for safe and adequate testing of a source.

(e) *Conduct of performance tests.*

(1) Performance tests shall be conducted under such conditions as the Administrator specifies to the owner or operator based on representative performance (i.e., performance based on normal operating conditions) of the affected source. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test, nor shall

emissions in excess of the level of the relevant standard during periods of startup, shutdown, and malfunction be considered a violation of the relevant standard unless otherwise specified in the relevant standard or a determination of noncompliance is made under § 63.6(e). Upon request, the owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests.

(2) Performance tests shall be conducted and data shall be reduced in accordance with the test methods and procedures set forth in this section, in each relevant standard, and, if required, in applicable appendices of parts 51, 60, 61, and 63 of this chapter unless the Administrator -

- (i) Specifies or approves, in specific cases, the use of a test method with minor changes in methodology (see definition in § 63.90(a)). Such changes may be approved in conjunction with approval of the site-specific test plan (see paragraph (c) of this section); or
- (ii) Approves the use of an intermediate or major change or alternative to a test method (see definitions in § 63.90(a)), the results of which the Administrator has determined to be adequate for indicating whether a specific affected source is in compliance; or
- (iii) Approves shorter sampling times or smaller sample volumes when necessitated by process variables or other factors; or
- (iv) Waives the requirement for performance tests because the owner or operator of an affected source has demonstrated by other means to the Administrator's satisfaction that the affected source is in compliance with the relevant standard.

(3) Unless otherwise specified in a relevant standard or test method, each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the relevant standard. For the purpose of determining compliance with a relevant standard, the arithmetic mean of the results of the three runs shall apply. Upon receiving approval from the Administrator, results of a test run may be replaced with results of an additional test run in the event that -

- (i) A sample is accidentally lost after the testing team leaves the site; or
- (ii) Conditions occur in which one of the three runs must be discontinued because of forced shutdown; or
- (iii) Extreme meteorological conditions occur; or
- (iv) Other circumstances occur that are beyond the owner or operator's control.

(4) Nothing in paragraphs (e)(1) through (e)(3) of this section shall be construed to abrogate the Administrator's authority to require testing under section 114 of the Act.

(f) *Use of an alternative test method -*

(1) *General.* Until authorized to use an intermediate or major change or alternative to a test method, the owner or operator of an affected source remains subject to the requirements of this section and the relevant standard.

(2) The owner or operator of an affected source required to do performance testing by a relevant standard may use an alternative test method from that specified in the standard provided that the owner or operator -

- (i) Notifies the Administrator of his or her intention to use an alternative test method at least 60 days before the performance test is scheduled to begin;
- (ii) Uses Method 301 in appendix A of this part to validate the alternative test method. This may include the use of specific procedures of Method 301 if use of such procedures are sufficient to validate the alternative test method; and
- (iii) Submits the results of the Method 301 validation process along with the notification of intention and the justification for not using the specified test method. The owner or operator may submit the information required in this paragraph well in advance of the deadline specified in paragraph (f)(2)(i) of this section to ensure a timely review by the Administrator in order to meet the performance test date specified in this section or the relevant standard.

(3) The Administrator will determine whether the owner or operator's validation of the proposed alternative test method is adequate and issue an approval or disapproval of the alternative test method. If the owner or operator intends to demonstrate compliance by using an alternative to any test method specified in the relevant standard, the owner or operator is authorized to conduct the performance test using an alternative test method after the Administrator approves the use of the alternative method. However, the owner or operator is authorized to conduct the performance test using an alternative method in the absence of notification of approval/disapproval 45 days after submission of the request to use an alternative method and the request satisfies the requirements in paragraph (f)(2) of this section. The owner or operator is authorized to conduct the performance test within 60 calendar days after he/she is authorized to demonstrate compliance using an alternative test method. Notwithstanding the requirements in the preceding three sentences, the owner or operator may proceed to conduct the performance test as required in this section (without the Administrator's prior approval of the site-specific test plan) if he/she subsequently chooses to use the specified testing and monitoring methods instead of an alternative.

(4) If the Administrator finds reasonable grounds to dispute the results obtained by an alternative test method for the purposes of demonstrating compliance with a relevant standard, the Administrator may require the use of a test method specified in a relevant standard.

(5) If the owner or operator uses an alternative test method for an affected source during a required performance test, the owner or operator of such source shall continue to use the alternative test method for subsequent performance tests at that affected source until he or she receives approval from the Administrator to use another test method as allowed under § 63.7(f).

(6) Neither the validation and approval process nor the failure to validate an alternative test method shall abrogate the owner or operator's responsibility to comply with the requirements of this part.

(g) Data analysis, recordkeeping, and reporting.

(1) Unless otherwise specified in a relevant standard or test method, or as otherwise approved by the Administrator in writing, results of a performance test shall include the analysis of samples, determination of emissions, and raw data. A performance test is "completed" when field sample

collection is terminated. The owner or operator of an affected source shall report the results of the performance test to the Administrator before the close of business on the 60th day following the completion of the performance test, unless specified otherwise in a relevant standard or as approved otherwise in writing by the Administrator (see § 63.9(i)). The results of the performance test shall be submitted as part of the notification of compliance status required under § 63.9(h). Before a title V permit has been issued to the owner or operator of an affected source, the owner or operator shall send the results of the performance test to the Administrator. After a title V permit has been issued to the owner or operator of an affected source, the owner or operator shall send the results of the performance test to the appropriate permitting authority.

(2) Contents of a performance test, CMS performance evaluation, or CMS quality assurance test report (electronic or paper submitted copy). Unless otherwise specified in a relevant standard, test method, CMS performance specification, or quality assurance requirement for a CMS, or as otherwise approved by the Administrator in writing, the report shall include the elements identified in paragraphs (g)(2)(i) through (vi) of this section.

(i) General identification information for the facility including a mailing address, the physical address, the owner or operator or responsible official (where applicable) and his/her email address, and the appropriate Federal Registry System (FRS) number for the facility.

(ii) Purpose of the test including the applicable regulation requiring the test, the pollutant(s) and other parameters being measured, the applicable emission standard, and any process parameter component, and a brief process description.

(iii) Description of the emission unit tested including fuel burned, control devices, and vent characteristics; the appropriate source classification code (SCC); the permitted maximum process rate (where applicable); and the sampling location.

(iv) Description of sampling and analysis procedures used and any modifications to standard procedures, quality assurance procedures and results, record of process operating conditions that demonstrate the applicable test conditions are met, and values for any operating parameters for which limits were being set during the test.

(v) Where a test method, CEMS, PEMS, or COMS performance specification, or on-going quality assurance requirement for a CEMS, PEMS, or COMS requires you record or report, the following shall be included in your report: Record of preparation of standards, record of calibrations, raw data sheets for field sampling, raw data sheets for field and laboratory analyses, chain-of-custody documentation, and example calculations for reported results.

(vi) Identification of the company conducting the performance test including the primary office address, telephone number, and the contact for this test including his/her email address.

(3) For a minimum of 5 years after a performance test is conducted, the owner or operator shall retain and make available, upon request, for inspection by the Administrator the records or results of such performance test and other data needed to determine emissions from an affected source.

(h) *Waiver of performance tests.*

(1) Until a waiver of a performance testing requirement has been granted by the Administrator under this paragraph, the owner or operator of an affected source remains subject to the requirements of this section.

(2) Individual performance tests may be waived upon written application to the Administrator if, in the Administrator's judgment, the source is meeting the relevant standard(s) on a continuous basis, or the source is being operated under an extension of compliance, or the owner or operator has requested an extension of compliance and the Administrator is still considering that request.

(3) *Request to waive a performance test.*

(i) If a request is made for an extension of compliance under § 63.6(i), the application for a waiver of an initial performance test shall accompany the information required for the request for an extension of compliance. If no extension of compliance is requested or if the owner or operator has requested an extension of compliance and the Administrator is still considering that request, the application for a waiver of an initial performance test shall be submitted at least 60 days before the performance test if the site-specific test plan under paragraph (c) of this section is not submitted.

(ii) If an application for a waiver of a subsequent performance test is made, the application may accompany any required compliance progress report, compliance status report, or excess emissions and continuous monitoring system performance report [such as those required under § 63.6(i), § 63.9(h), and § 63.10(e) or specified in a relevant standard or in the source's title V permit], but it shall be submitted at least 60 days before the performance test if the site-specific test plan required under paragraph (c) of this section is not submitted.

(iii) Any application for a waiver of a performance test shall include information justifying the owner or operator's request for a waiver, such as the technical or economic infeasibility, or the impracticality, of the affected source performing the required test.

(4) *Approval of request to waive performance test.* The Administrator will approve or deny a request for a waiver of a performance test made under paragraph (h)(3) of this section when he/she -

(i) Approves or denies an extension of compliance under § 63.6(i)(8); or

(ii) Approves or disapproves a site-specific test plan under § 63.7(c)(3); or

(iii) Makes a determination of compliance following the submission of a required compliance status report or excess emissions and continuous monitoring systems performance report; or

(iv) Makes a determination of suitable progress towards compliance following the submission of a compliance progress report, whichever is applicable.

(5) Approval of any waiver granted under this section shall not abrogate the Administrator's authority under the Act or in any way prohibit the Administrator from later canceling the waiver. The cancellation will be made only after notice is given to the owner or operator of the affected source.

§ 63.8 Monitoring requirements.

(a) *Applicability.*

(1) The applicability of this section is set out in § 63.1(a)(4).

(2) For the purposes of this part, all CMS required under relevant standards shall be subject to the provisions of this section upon promulgation of performance specifications for CMS as specified in the relevant standard or otherwise by the Administrator.

(3) [Reserved]

(4) Additional monitoring requirements for control devices used to comply with provisions in relevant standards of this part are specified in § 63.11.

(b) Conduct of monitoring.

(1) Monitoring shall be conducted as set forth in this section and the relevant standard(s) unless the Administrator -

- (i) Specifies or approves the use of minor changes in methodology for the specified monitoring requirements and procedures (see § 63.90(a) for definition); or
- (ii) Approves the use of an intermediate or major change or alternative to any monitoring requirements or procedures (see § 63.90(a) for definition).
- (iii) Owners or operators with flares subject to § 63.11(b) are not subject to the requirements of this section unless otherwise specified in the relevant standard.

(2) (i) When the emissions from two or more affected sources are combined before being released to the atmosphere, the owner or operator may install an applicable CMS for each emission stream or for the combined emissions streams, provided the monitoring is sufficient to demonstrate compliance with the relevant standard.

- (ii) If the relevant standard is a mass emission standard and the emissions from one affected source are released to the atmosphere through more than one point, the owner or operator must install an applicable CMS at each emission point unless the installation of fewer systems is

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(A) Approved by the Administrator; or

(B) Provided for in a relevant standard (e.g., instead of requiring that a CMS be installed at each emission point before the effluents from those points are channeled to a common control device, the standard specifies that only one CMS is required to be installed at the vent of the control device).

(3) When more than one CMS is used to measure the emissions from one affected source (e.g., multiple breechings, multiple outlets), the owner or operator shall report the results as required for each CMS. However, when one CMS is used as a backup to another CMS, the owner or operator shall report the results from the CMS used to meet the monitoring requirements of this part. If both such CMS are used during a particular reporting period to meet the monitoring requirements of this part, then the owner or operator shall report the results from each CMS for the relevant compliance period.

(c) Operation and maintenance of continuous monitoring systems.

(1) The owner or operator of an affected source shall maintain and operate each CMS as specified in this section, or in a relevant standard, and in a manner consistent with good air pollution control practices.

- (i) The owner or operator of an affected source must maintain and operate each CMS as specified in § 63.6(e)(1).
 - (ii) The owner or operator must keep the necessary parts for routine repairs of the affected CMS equipment readily available.
 - (iii) The owner or operator of an affected source must develop a written startup, shutdown, and malfunction plan for CMS as specified in § 63.6(e)(3).
- (2) (i) All CMS must be installed such that representative measures of emissions or process parameters from the affected source are obtained. In addition, CEMS must be located according to procedures contained in the applicable performance specification(s).
- (ii) Unless the individual subpart states otherwise, the owner or operator must ensure the read out (that portion of the CMS that provides a visual display or record), or other indication of operation, from any CMS required for compliance with the emission standard is readily accessible on site for operational control or inspection by the operator of the equipment.
- (3) All CMS shall be installed, operational, and the data verified as specified in the relevant standard either prior to or in conjunction with conducting performance tests under § 63.7. Verification of operational status shall, at a minimum, include completion of the manufacturer's written specifications or recommendations for installation, operation, and calibration of the system.
- (4) Except for system breakdowns, out-of-control periods, repairs, maintenance periods, calibration checks, and zero (low-level) and high-level calibration drift adjustments, all CMS, including COMS and CEMS, shall be in continuous operation and shall meet minimum frequency of operation requirements as follows:
- (i) All COMS shall complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.
 - (ii) All CEMS for measuring emissions other than opacity shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.
- (5) Unless otherwise approved by the Administrator, minimum procedures for COMS shall include a method for producing a simulated zero opacity condition and an upscale (high-level) opacity condition using a certified neutral density filter or other related technique to produce a known obscuration of the light beam. Such procedures shall provide a system check of all the analyzer's internal optical surfaces and all electronic circuitry, including the lamp and photodetector assembly normally used in the measurement of opacity.
- (6) The owner or operator of a CMS that is not a CPMS, which is installed in accordance with the provisions of this part and the applicable CMS performance specification(s), must check the zero (low-level) and high-level calibration drifts at least once daily in accordance with the written procedure specified in the performance evaluation plan developed under paragraphs (e)(3)(i) and (ii) of this section. The zero (low-level) and high-level calibration drifts must be adjusted, at a minimum, whenever the 24-hour zero (low-level) drift exceeds two times the limits of the applicable performance specification(s) specified in the relevant standard. The system shall allow the amount of excess zero (low-level) and high-level drift measured at the 24-hour interval checks to be recorded and quantified

whenever specified. For COMS, all optical and instrumental surfaces exposed to the effluent gases must be cleaned prior to performing the zero (low-level) and high-level drift adjustments; the optical surfaces and instrumental surfaces must be cleaned when the cumulative automatic zero compensation, if applicable, exceeds 4 percent opacity. The CPMS must be calibrated prior to use for the purposes of complying with this section. The CPMS must be checked daily for indication that the system is responding. If the CPMS system includes an internal system check, results must be recorded and checked daily for proper operation.

(7) (i) A CMS is out of control if -

- (A) The zero (low-level), mid-level (if applicable), or high-level calibration drift (CD) exceeds two times the applicable CD specification in the applicable performance specification or in the relevant standard; or
- (B) The CMS fails a performance test audit (e.g., cylinder gas audit), relative accuracy audit, relative accuracy test audit, or linearity test audit; or
- (C) The COMS CD exceeds two times the limit in the applicable performance specification in the relevant standard.

(ii) When the CMS is out of control, the owner or operator of the affected source shall take the necessary corrective action and shall repeat all necessary tests which indicate that the system is out of control. The owner or operator shall take corrective action and conduct retesting until the performance requirements are below the applicable limits. The beginning of the out-of-control period is the hour the owner or operator conducts a performance check (e.g., calibration drift) that indicates an exceedance of the performance requirements established under this part. The end of the out-of-control period is the hour following the completion of corrective action and successful demonstration that the system is within the allowable limits. During the period the CMS is out of control, recorded data shall not be used in data averages and calculations, or to meet any data availability requirement established under this part.

(8) The owner or operator of a CMS that is out of control as defined in paragraph (c)(7) of this section shall submit all information concerning out-of-control periods, including start and end dates and hours and descriptions of corrective actions taken, in the excess emissions and continuous monitoring system performance report required in § 63.10(e)(3).

(d) *Quality control program.*

(1) The results of the quality control program required in this paragraph will be considered by the Administrator when he/she determines the validity of monitoring data.

(2) The owner or operator of an affected source that is required to use a CMS and is subject to the monitoring requirements of this section and a relevant standard shall develop and implement a CMS quality control program. As part of the quality control program, the owner or operator shall develop and submit to the Administrator for approval upon request a site-specific performance evaluation test plan for the CMS performance evaluation required in paragraph (e)(3)(i) of this section, according to the procedures specified in paragraph (e). In addition, each quality control program shall include, at a minimum, a written protocol that describes procedures for each of the following operations:

- (i) Initial and any subsequent calibration of the CMS;

- (ii) Determination and adjustment of the calibration drift of the CMS;
- (iii) Preventive maintenance of the CMS, including spare parts inventory;
- (iv) Data recording, calculations, and reporting;
- (v) Accuracy audit procedures, including sampling and analysis methods; and
- (vi) Program of corrective action for a malfunctioning CMS.

(3) The owner or operator shall keep these written procedures on record for the life of the affected source or until the affected source is no longer subject to the provisions of this part, to be made available for inspection, upon request, by the Administrator. If the performance evaluation plan is revised, the owner or operator shall keep previous (i.e., superseded) versions of the performance evaluation plan on record to be made available for inspection, upon request, by the Administrator, for a period of 5 years after each revision to the plan. Where relevant, e.g., program of corrective action for a malfunctioning CMS, these written procedures may be incorporated as part of the affected source's startup, shutdown, and malfunction plan to avoid duplication of planning and recordkeeping efforts.

(e) Performance evaluation of continuous monitoring systems -

(1) *General.* When required by a relevant standard, and at any other time the Administrator may require under section 114 of the Act, the owner or operator of an affected source being monitored shall conduct a performance evaluation of the CMS. Such performance evaluation shall be conducted according to the applicable specifications and procedures described in this section or in the relevant standard.

(2) *Notification of performance evaluation.* The owner or operator shall notify the Administrator in writing of the date of the performance evaluation simultaneously with the notification of the performance test date required under § 63.7(b) or at least 60 days prior to the date the performance evaluation is scheduled to begin if no performance test is required.

(3) (i) *Submission of site-specific performance evaluation test plan.* Before conducting a required CMS performance evaluation, the owner or operator of an affected source shall develop and submit a site-specific performance evaluation test plan to the Administrator for approval upon request. The performance evaluation test plan shall include the evaluation program objectives, an evaluation program summary, the performance evaluation schedule, data quality objectives, and both an internal and external QA program. Data quality objectives are the pre-evaluation expectations of precision, accuracy, and completeness of data.

(ii) The internal QA program shall include, at a minimum, the activities planned by routine operators and analysts to provide an assessment of CMS performance. The external QA program shall include, at a minimum, systems audits that include the opportunity for on-site evaluation by the Administrator of instrument calibration, data validation, sample logging, and documentation of quality control data and field maintenance activities.

(iii) The owner or operator of an affected source shall submit the site-specific performance evaluation test plan to the Administrator (if requested) at least 60 days before the performance test or performance evaluation is scheduled to begin, or on a mutually agreed upon date, and

review and approval of the performance evaluation test plan by the Administrator will occur with the review and approval of the site-specific test plan (if review of the site-specific test plan is requested).

(iv) The Administrator may request additional relevant information after the submittal of a site-specific performance evaluation test plan.

(v) In the event that the Administrator fails to approve or disapprove the site-specific performance evaluation test plan within the time period specified in § 63.7(c)(3), the following conditions shall apply:

(A) If the owner or operator intends to demonstrate compliance using the monitoring method(s) specified in the relevant standard, the owner or operator shall conduct the performance evaluation within the time specified in this subpart using the specified method(s);

(B) If the owner or operator intends to demonstrate compliance by using an alternative to a monitoring method specified in the relevant standard, the owner or operator shall refrain from conducting the performance evaluation until the Administrator approves the use of the alternative method. If the Administrator does not approve the use of the alternative method within 30 days before the performance evaluation is scheduled to begin, the performance evaluation deadlines specified in paragraph (e)(4) of this section may be extended such that the owner or operator shall conduct the performance evaluation within 60 calendar days after the Administrator approves the use of the alternative method. Notwithstanding the requirements in the preceding two sentences, the owner or operator may proceed to conduct the performance evaluation as required in this section (without the Administrator's prior approval of the site-specific performance evaluation test plan) if he/she subsequently chooses to use the specified monitoring method(s) instead of an alternative.

(vi) Neither the submission of a site-specific performance evaluation test plan for approval, nor the Administrator's approval or disapproval of a plan, nor the Administrator's failure to approve or disapprove a plan in a timely manner shall -

(A) Relieve an owner or operator of legal responsibility for compliance with any applicable provisions of this part or with any other applicable Federal, State, or local requirement; or

(B) Prevent the Administrator from implementing or enforcing this part or taking any other action under the Act.

(4) *Conduct of performance evaluation and performance evaluation dates.* The owner or operator of an affected source shall conduct a performance evaluation of a required CMS during any performance test required under § 63.7 in accordance with the applicable performance specification as specified in the relevant standard. Notwithstanding the requirement in the previous sentence, if the owner or operator of an affected source elects to submit COMS data for compliance with a relevant opacity emission standard as provided under § 63.6(h)(7), he/she shall conduct a performance evaluation of the COMS as specified in the relevant standard, before the performance test required under § 63.7 is conducted in time to submit the results of the performance evaluation as specified in paragraph (e)(5)(ii) of this

section. If a performance test is not required, or the requirement for a performance test has been waived under § 63.7(h), the owner or operator of an affected source shall conduct the performance evaluation not later than 180 days after the appropriate compliance date for the affected source, as specified in § 63.7(a), or as otherwise specified in the relevant standard.

(5) Reporting performance evaluation results.

(i) The owner or operator shall furnish the Administrator a copy of a written report of the results of the performance evaluation containing the information specified in § 63.7(g)(2)(i) through (vi) simultaneously with the results of the performance test required under § 63.7 or within 60 days of completion of the performance evaluation, unless otherwise specified in a relevant standard.

(ii) The owner or operator of an affected source using a COMS to determine opacity compliance during any performance test required under § 63.7 and described in § 63.6(d)(6) shall furnish the Administrator two or, upon request, three copies of a written report of the results of the COMS performance evaluation under this paragraph. The copies shall be provided at least 15 calendar days before the performance test required under § 63.7 is conducted.

(f) Use of an alternative monitoring method -

(1) *General.* Until permission to use an alternative monitoring procedure (minor, intermediate, or major changes; see definition in § 63.90(a)) has been granted by the Administrator under this paragraph (f)(1), the owner or operator of an affected source remains subject to the requirements of this section and the relevant standard.

(2) After receipt and consideration of written application, the Administrator may approve alternatives to any monitoring methods or procedures of this part including, but not limited to, the following:

(i) Alternative monitoring requirements when installation of a CMS specified by a relevant standard would not provide accurate measurements due to liquid water or other interferences caused by substances within the effluent gases;

(ii) Alternative monitoring requirements when the affected source is infrequently operated;

(iii) Alternative monitoring requirements to accommodate CEMS that require additional measurements to correct for stack moisture conditions;

(iv) Alternative locations for installing CMS when the owner or operator can demonstrate that installation at alternate locations will enable accurate and representative measurements;

(v) Alternate methods for converting pollutant concentration measurements to units of the relevant standard;

(vi) Alternate procedures for performing daily checks of zero (low-level) and high-level drift that do not involve use of high-level gases or test cells;

(vii) Alternatives to the American Society for Testing and Materials (ASTM) test methods or sampling procedures specified by any relevant standard;

(viii) Alternative CMS that do not meet the design or performance requirements in this part, but adequately demonstrate a definite and consistent relationship between their measurements

and the measurements of opacity by a system complying with the requirements as specified in the relevant standard. The Administrator may require that such demonstration be performed for each affected source; or

(ix) Alternative monitoring requirements when the effluent from a single affected source or the combined effluent from two or more affected sources is released to the atmosphere through more than one point.

(3) If the Administrator finds reasonable grounds to dispute the results obtained by an alternative monitoring method, requirement, or procedure, the Administrator may require the use of a method, requirement, or procedure specified in this section or in the relevant standard. If the results of the specified and alternative method, requirement, or procedure do not agree, the results obtained by the specified method, requirement, or procedure shall prevail.

(4) (i) *Request to use alternative monitoring procedure.* An owner or operator who wishes to use an alternative monitoring procedure must submit an application to the Administrator as described in paragraph (f)(4)(ii) of this section. The application may be submitted at any time provided that the monitoring procedure is not the performance test method used to demonstrate compliance with a relevant standard or other requirement. If the alternative monitoring procedure will serve as the performance test method that is to be used to demonstrate compliance with a relevant standard, the application must be submitted at least 60 days before the performance evaluation is scheduled to begin and must meet the requirements for an alternative test method under § 63.7(f).

(ii) The application must contain a description of the proposed alternative monitoring system which addresses the four elements contained in the definition of monitoring in § 63.2 and a performance evaluation test plan, if required, as specified in paragraph (e)(3) of this section. In addition, the application must include information justifying the owner or operator's request for an alternative monitoring method, such as the technical or economic infeasibility, or the impracticality, of the affected source using the required method.

(iii) The owner or operator may submit the information required in this paragraph well in advance of the submittal dates specified in paragraph (f)(4)(i) above to ensure a timely review by the Administrator in order to meet the compliance demonstration date specified in this section or the relevant standard.

(iv) Application for minor changes to monitoring procedures, as specified in paragraph (b)(1) of this section, may be made in the site-specific performance evaluation plan.

(5) *Approval of request to use alternative monitoring procedure.*

(i) The Administrator will notify the owner or operator of approval or intention to deny approval of the request to use an alternative monitoring method within 30 calendar days after receipt of the original request and within 30 calendar days after receipt of any supplementary information that is submitted. If a request for a minor change is made in conjunction with site-specific performance evaluation plan, then approval of the plan will constitute approval of the minor change. Before disapproving any request to use an alternative monitoring method, the Administrator will notify the applicant of the Administrator's intention to disapprove the request together with -

(A) Notice of the information and findings on which the intended disapproval is based; and

(B) Notice of opportunity for the owner or operator to present additional information to the Administrator before final action on the request. At the time the Administrator notifies the applicant of his or her intention to disapprove the request, the Administrator will specify how much time the owner or operator will have after being notified of the intended disapproval to submit the additional information.

(ii) The Administrator may establish general procedures and criteria in a relevant standard to accomplish the requirements of paragraph (f)(5)(i) of this section.

(iii) If the Administrator approves the use of an alternative monitoring method for an affected source under paragraph (f)(5)(i) of this section, the owner or operator of such source shall continue to use the alternative monitoring method until he or she receives approval from the Administrator to use another monitoring method as allowed by § 63.8(f).

(6) *Alternative to the relative accuracy test.* An alternative to the relative accuracy test for CEMS specified in a relevant standard may be requested as follows:

(i) *Criteria for approval of alternative procedures.* An alternative to the test method for determining relative accuracy is available for affected sources with emission rates demonstrated to be less than 50 percent of the relevant standard. The owner or operator of an affected source may petition the Administrator under paragraph (f)(6)(ii) of this section to substitute the relative accuracy test in section 7 of Performance Specification 2 with the procedures in section 10 if the results of a performance test conducted according to the requirements in § 63.7, or other tests performed following the criteria in § 63.7, demonstrate that the emission rate of the pollutant of interest in the units of the relevant standard is less than 50 percent of the relevant standard. For affected sources subject to emission limitations expressed as control efficiency levels, the owner or operator may petition the Administrator to substitute the relative accuracy test with the procedures in section 10 of Performance Specification 2 if the control device exhaust emission rate is less than 50 percent of the level needed to meet the control efficiency requirement. The alternative procedures do not apply if the CEMS is used continuously to determine compliance with the relevant standard.

(ii) *Petition to use alternative to relative accuracy test.* The petition to use an alternative to the relative accuracy test shall include a detailed description of the procedures to be applied, the location and the procedure for conducting the alternative, the concentration or response levels of the alternative relative accuracy materials, and the other equipment checks included in the alternative procedure(s). The Administrator will review the petition for completeness and applicability. The Administrator's determination to approve an alternative will depend on the intended use of the CEMS data and may require specifications more stringent than in Performance Specification 2.

(iii) *Rescission of approval to use alternative to relative accuracy test.* The Administrator will review the permission to use an alternative to the CEMS relative accuracy test and may rescind such permission if the CEMS data from a successful completion of the alternative relative accuracy procedure indicate that the affected source's emissions are approaching the level of

the relevant standard. The criterion for reviewing the permission is that the collection of CEMS data shows that emissions have exceeded 70 percent of the relevant standard for any averaging period, as specified in the relevant standard. For affected sources subject to emission limitations expressed as control efficiency levels, the criterion for reviewing the permission is that the collection of CEMS data shows that exhaust emissions have exceeded 70 percent of the level needed to meet the control efficiency requirement for any averaging period, as specified in the relevant standard. The owner or operator of the affected source shall maintain records and determine the level of emissions relative to the criterion for permission to use an alternative for relative accuracy testing. If this criterion is exceeded, the owner or operator shall notify the Administrator within 10 days of such occurrence and include a description of the nature and cause of the increased emissions. The Administrator will review the notification and may rescind permission to use an alternative and require the owner or operator to conduct a relative accuracy test of the CEMS as specified in section 7 of Performance Specification 2. The Administrator will review the notification and may rescind permission to use an alternative and require the owner or operator to conduct a relative accuracy test of the CEMS as specified in section 8.4 of Performance Specification 2.

(g) Reduction of monitoring data.

(1) The owner or operator of each CMS must reduce the monitoring data as specified in paragraphs (g)(1) through (5) of this section.

(2) The owner or operator of each COMS shall reduce all data to 6-minute averages calculated from 36 or more data points equally spaced over each 6-minute period. Data from CEMS for measurement other than opacity, unless otherwise specified in the relevant standard, shall be reduced to 1-hour averages computed from four or more data points equally spaced over each 1-hour period, except during periods when calibration, quality assurance, or maintenance activities pursuant to provisions of this part are being performed. During these periods, a valid hourly average shall consist of at least two data points with each representing a 15-minute period. Alternatively, an arithmetic or integrated 1-hour average of CEMS data may be used. Time periods for averaging are defined in § 63.2.

(3) The data may be recorded in reduced or nonreduced form (e.g., ppm pollutant and percent O₂ or ng/J of pollutant).

(4) All emission data shall be converted into units of the relevant standard for reporting purposes using the conversion procedures specified in that standard. After conversion into units of the relevant standard, the data may be rounded to the same number of significant digits as used in that standard to specify the emission limit (e.g., rounded to the nearest 1 percent opacity).

(5) Monitoring data recorded during periods of unavoidable CMS breakdowns, out-of-control periods, repairs, maintenance periods, calibration checks, and zero (low-level) and high-level adjustments must not be included in any data average computed under this part. For the owner or operator complying with the requirements of § 63.10(b)(2)(vii)(A) or (B), data averages must include any data recorded during periods of monitor breakdown or malfunction.

§ 63.9 Notification requirements.

(a) Applicability and general information.

- (1) The applicability of this section is set out in § 63.1(a)(4).
- (2) For affected sources that have been granted an extension of compliance under subpart D of this part, the requirements of this section do not apply to those sources while they are operating under such compliance extensions.
- (3) If any State requires a notice that contains all the information required in a notification listed in this section, the owner or operator may send the Administrator a copy of the notice sent to the State to satisfy the requirements of this section for that notification.
- (4) (i) Before a State has been delegated the authority to implement and enforce notification requirements established under this part, the owner or operator of an affected source in such State subject to such requirements shall submit notifications to the appropriate Regional Office of the EPA (to the attention of the Director of the Division indicated in the list of the EPA Regional Offices in § 63.13).
- (ii) After a State has been delegated the authority to implement and enforce notification requirements established under this part, the owner or operator of an affected source in such State subject to such requirements shall submit notifications to the delegated State authority (which may be the same as the permitting authority). In addition, if the delegated (permitting) authority is the State, the owner or operator shall send a copy of each notification submitted to the State to the appropriate Regional Office of the EPA, as specified in paragraph (a)(4)(i) of this section. The Regional Office may waive this requirement for any notifications at its discretion.

(b) Initial notifications.

- (1) (i) The requirements of this paragraph apply to the owner or operator of an affected source when such source becomes subject to a relevant standard.
 - (ii) If an area source subsequently becomes a major source that is subject to the emission standard or other requirement, such source shall be subject to the notification requirements of this section. Area sources previously subject to major source requirements that become major sources again are also subject to the notification requirements of this paragraph and must submit the notification according to the requirements of paragraph (k) of this section.
 - (iii) Affected sources that are required under this paragraph to submit an initial notification may use the application for approval of construction or reconstruction under § 63.5(d) of this subpart, if relevant, to fulfill the initial notification requirements of this paragraph.
- (2) The owner or operator of an affected source that has an initial startup before the effective date of a relevant standard under this part shall notify the Administrator in writing that the source is subject to the relevant standard. The notification, which shall be submitted not later than 120 calendar days after the effective date of the relevant standard (or within 120 calendar days after the source becomes subject to the relevant standard), shall provide the following information:
- (i) The name and address of the owner or operator;
 - (ii) The address (i.e., physical location) of the affected source;
 - (iii) An identification of the relevant standard, or other requirement, that is the basis of the notification and the source's compliance date;

(iv) A brief description of the nature, size, design, and method of operation of the source and an identification of the types of emission points within the affected source subject to the relevant standard and types of hazardous air pollutants emitted; and

(v) A statement of whether the affected source is a major source or an area source.

(3) [Reserved]

(4) The owner or operator of a new or reconstructed major affected source for which an application for approval of construction or reconstruction is required under § 63.5(d) must provide the following information in writing to the Administrator:

(i) A notification of intention to construct a new major-emitting affected source, reconstruct a major-emitting affected source, or reconstruct a major source such that the source becomes a major-emitting affected source with the application for approval of construction or reconstruction as specified in § 63.5(d)(1)(i); and

(ii)-(iv) [Reserved]

(v) A notification of the actual date of startup of the source, delivered or postmarked within 15 calendar days after that date.

(5) The owner or operator of a new or reconstructed affected source for which an application for approval of construction or reconstruction is not required under § 63.5(d) must provide the following information in writing to the Administrator:

(i) A notification of intention to construct a new affected source, reconstruct an affected source, or reconstruct a source such that the source becomes an affected source, and

(ii) A notification of the actual date of startup of the source, delivered or postmarked within 15 calendar days after that date.

(iii) Unless the owner or operator has requested and received prior permission from the Administrator to submit less than the information in § 63.5(d), the notification must include the information required on the application for approval of construction or reconstruction as specified in § 63.5(d)(1)(i).

(c) *Request for extension of compliance.* If the owner or operator of an affected source cannot comply with a relevant standard by the applicable compliance date for that source, or if the owner or operator has installed BACT or technology to meet LAER consistent with § 63.6(i)(5) of this subpart, he/she may submit to the Administrator (or the State with an approved permit program) a request for an extension of compliance as specified in § 63.6(i)(4) through § 63.6(i)(6).

(d) *Notification that source is subject to special compliance requirements.* An owner or operator of a new source that is subject to special compliance requirements as specified in § 63.6(b)(3) and § 63.6(b)(4) shall notify the Administrator of his/her compliance obligations not later than the notification dates established in paragraph (b) of this section for new sources that are not subject to the special provisions.

(e) *Notification of performance test.* The owner or operator of an affected source shall notify the Administrator in writing of his or her intention to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin to allow the Administrator to review and approve the

site-specific test plan required under § 63.7(c), if requested by the Administrator, and to have an observer present during the test.

(f) *Notification of opacity and visible emission observations.* The owner or operator of an affected source shall notify the Administrator in writing of the anticipated date for conducting the opacity or visible emission observations specified in § 63.6(h)(5), if such observations are required for the source by a relevant standard. The notification shall be submitted with the notification of the performance test date, as specified in paragraph (e) of this section, or if no performance test is required or visibility or other conditions prevent the opacity or visible emission observations from being conducted concurrently with the initial performance test required under § 63.7, the owner or operator shall deliver or postmark the notification not less than 30 days before the opacity or visible emission observations are scheduled to take place.

(g) *Additional notification requirements for sources with continuous monitoring systems.* The owner or operator of an affected source required to use a CMS by a relevant standard shall furnish the Administrator written notification as follows:

- (1) A notification of the date the CMS performance evaluation under § 63.8(e) is scheduled to begin, submitted simultaneously with the notification of the performance test date required under § 63.7(b). If no performance test is required, or if the requirement to conduct a performance test has been waived for an affected source under § 63.7(h), the owner or operator shall notify the Administrator in writing of the date of the performance evaluation at least 60 calendar days before the evaluation is scheduled to begin;
- (2) A notification that COMS data results will be used to determine compliance with the applicable opacity emission standard during a performance test required by § 63.7 in lieu of Method 9 or other opacity emissions test method data, as allowed by § 63.6(h)(7)(ii), if compliance with an opacity emission standard is required for the source by a relevant standard. The notification shall be submitted at least 60 calendar days before the performance test is scheduled to begin; and
- (3) A notification that the criterion necessary to continue use of an alternative to relative accuracy testing, as provided by § 63.8(f)(6), has been exceeded. The notification shall be delivered or postmarked not later than 10 days after the occurrence of such exceedance, and it shall include a description of the nature and cause of the increased emissions.

(h) *Notification of compliance status.*

- (1) The requirements of paragraphs (h)(2) through (h)(4) of this section apply when an affected source becomes subject to a relevant standard.
- (2) (i) Before a title V permit has been issued to the owner or operator of an affected source, and each time a notification of compliance status is required under this part, the owner or operator of such source shall submit to the Administrator a notification of compliance status, signed by the responsible official who shall certify its accuracy, attesting to whether the source has complied with the relevant standard. The notification shall list -

(A) The methods that were used to determine compliance;

(B) The results of any performance tests, opacity or visible emission observations, continuous monitoring system (CMS) performance evaluations, and/or other monitoring procedures or methods that were conducted;

(C) The methods that will be used for determining continuing compliance, including a description of monitoring and reporting requirements and test methods;

(D) The type and quantity of hazardous air pollutants emitted by the source (or surrogate pollutants if specified in the relevant standard), reported in units and averaging times and in accordance with the test methods specified in the relevant standard;

(E) If the relevant standard applies to both major and area sources, an analysis demonstrating whether the affected source is a major source (using the emissions data generated for this notification);

(F) A description of the air pollution control equipment (or method) for each emission point, including each control device (or method) for each hazardous air pollutant and the control efficiency (percent) for each control device (or method); and

(G) A statement by the owner or operator of the affected existing, new, or reconstructed source as to whether the source has complied with the relevant standard or other requirements.

(ii) The notification must be sent before the close of business on the 60th day following the completion of the relevant compliance demonstration activity specified in the relevant standard (unless a different reporting period is specified in the standard, in which case the letter must be sent before the close of business on the day the report of the relevant testing or monitoring results is required to be delivered or postmarked). For example, the notification shall be sent before close of business on the 60th (or other required) day following completion of the initial performance test and again before the close of business on the 60th (or other required) day following the completion of any subsequent required performance test. If no performance test is required but opacity or visible emission observations are required to demonstrate compliance with an opacity or visible emission standard under this part, the notification of compliance status shall be sent before close of business on the 30th day following the completion of opacity or visible emission observations. Notifications may be combined as long as the due date requirement for each notification is met.

(3) After a title V permit has been issued to the owner or operator of an affected source, the owner or operator of such source shall comply with all requirements for compliance status reports contained in the source's title V permit, including reports required under this part. After a title V permit has been issued to the owner or operator of an affected source, and each time a notification of compliance status is required under this part, the owner or operator of such source shall submit the notification of compliance status to the appropriate permitting authority following completion of the relevant compliance demonstration activity specified in the relevant standard.

(4) [Reserved]

(5) If an owner or operator of an affected source submits estimates or preliminary information in the application for approval of construction or reconstruction required in § 63.5(d) in place of the actual emissions data or control efficiencies required in paragraphs (d)(1)(ii)(H) and (d)(2) of § 63.5, the owner or operator shall submit the actual emissions data and other correct information as soon as available but no later than with the initial notification of compliance status required in this section.

(6) Advice on a notification of compliance status may be obtained from the Administrator.

(i) *Adjustment to time periods or postmark deadlines for submittal and review of required communications.*

(1) (i) Until an adjustment of a time period or postmark deadline has been approved by the Administrator under paragraphs (i)(2) and (i)(3) of this section, the owner or operator of an affected source remains strictly subject to the requirements of this part.

(ii) An owner or operator shall request the adjustment provided for in paragraphs (i)(2) and (i)(3) of this section each time he or she wishes to change an applicable time period or postmark deadline specified in this part.

(2) Notwithstanding time periods or postmark deadlines specified in this part for the submittal of information to the Administrator by an owner or operator, or the review of such information by the Administrator, such time periods or deadlines may be changed by mutual agreement between the owner or operator and the Administrator. An owner or operator who wishes to request a change in a time period or postmark deadline for a particular requirement shall request the adjustment in writing as soon as practicable before the subject activity is required to take place. The owner or operator shall include in the request whatever information he or she considers useful to convince the Administrator that an adjustment is warranted.

(3) If, in the Administrator's judgment, an owner or operator's request for an adjustment to a particular time period or postmark deadline is warranted, the Administrator will approve the adjustment. The Administrator will notify the owner or operator in writing of approval or disapproval of the request for an adjustment within 15 calendar days of receiving sufficient information to evaluate the request.

(4) If the Administrator is unable to meet a specified deadline, he or she will notify the owner or operator of any significant delay and inform the owner or operator of the amended schedule.

(j) *Change in information already provided.* Any change in the information already provided under this section shall be provided to the Administrator within 15 calendar days after the change. The owner or operator of a major source that reclassifies to area source status is also subject to the notification requirements of this paragraph. The owner or operator may submit the application for reclassification with the regulatory authority (e.g., permit application) according to paragraph (k) of this section to fulfill the requirements of this paragraph, but the information required in paragraphs (j)(1) through (4) of this section must be included. A source which reclassified after January 25, 2018, and before January 19, 2021, and has not yet provided the notification of a change in information is required to provide such notification no later than February 2, 2021, according to the requirements of paragraph (k) of this section. Beginning January 19, 2021, the owner or operator of a major source that reclassifies to area source status must submit the notification according to the requirements of paragraph (k) of this section. A notification of reclassification must contain the following information:

- (1) The name and address of the owner or operator;
- (2) The address (*i.e.*, physical location) of the affected source;
- (3) An identification of the standard being reclassified from and to (if applicable); and
- (4) Date of effectiveness of the reclassification.

(k) *Electronic submission of notifications or reports.* If you are required to submit notifications or reports following the procedure specified in this paragraph (k), you must submit notifications or reports to the EPA via the EPA's Compliance and Emissions Data Reporting Interface (CEDRI), which can be accessed through the EPA's Central Data Exchange (CDX) (<https://cdx.epa.gov/>). The notification or report must be submitted by the deadline specified. The EPA will make all the information submitted through CEDRI available to the public without further notice to you. Do not use CEDRI to submit information you claim as confidential business information (CBI). Although we do not expect persons to assert a claim of CBI, if you wish to assert a CBI claim for some of the information in the report or notification, you must submit the information claimed to be CBI according to the procedures in paragraph (k)(3) of this section.

(1) If you are required to electronically submit a notification or report by this paragraph (k) through CEDRI in the EPA's CDX, you may assert a claim of EPA system outage for failure to timely comply with the electronic submittal requirement. To assert a claim of EPA system outage, you must meet the requirements outlined in paragraphs (k)(1)(i) through (vii) of this section.

- (i) You must have been or will be precluded from accessing CEDRI and submitting a required notification or report within the time prescribed due to an outage of either the EPA's CEDRI or CDX systems.
- (ii) The outage must have occurred within the period of time beginning 5 business days prior to the date that the notification or report is due.
- (iii) The outage may be planned or unplanned.
- (iv) You must submit notification to the Administrator in writing as soon as possible following the date you first knew, or through due diligence should have known, that the event may cause or has caused a delay in reporting.
- (v) You must provide to the Administrator a written description identifying:
 - (A) The date(s) and time(s) when CDX or CEDRI was accessed and the system was unavailable;
 - (B) A rationale for attributing the delay in submitting beyond the regulatory deadline to EPA system outage;
 - (C) Measures taken or to be taken to minimize the delay in submitting; and
 - (D) The date by which you propose to submit, or if you have already met the electronic submittal requirement in this paragraph (k) at the time of the notification, the date you submitted the notification or report.
- (vi) The decision to accept the claim of EPA system outage and allow an extension to the reporting deadline is solely within the discretion of the Administrator.

(vii) In any circumstance, the notification or report must be submitted electronically as soon as possible after the outage is resolved.

(2) If you are required to electronically submit a notification or report by this paragraph (k) through CEDRI in the EPA's CDX, you may assert a claim of force majeure for failure to timely comply with the electronic submittal requirement. To assert a claim of force majeure, you must meet the requirements outlined in paragraphs (k)(2)(i) through (v) of this section.

(i) You may submit a claim if a force majeure event is about to occur, occurs, or has occurred or there are lingering effects from such an event within the period of time beginning five business days prior to the date the submission is due. For the purposes of this section, a force majeure event is defined as an event that will be or has been caused by circumstances beyond the control of the affected facility, its contractors, or any entity controlled by the affected facility that prevents you from complying with the requirement to submit a notification or report electronically within the time period prescribed. Examples of such events are acts of nature (*e.g.*, hurricanes, earthquakes, or floods), acts of war or terrorism, or equipment failure or safety hazard beyond the control of the affected facility (*e.g.*, large scale power outage).

(ii) You must submit notification to the Administrator in writing as soon as possible following the date you first knew, or through due diligence should have known, that the event may cause or has caused a delay in submitting through CEDRI.

(iii) You must provide to the Administrator:

(A) A written description of the force majeure event;

(B) A rationale for attributing the delay in reporting beyond the regulatory deadline to the force majeure event;

(C) Measures taken or to be taken to minimize the delay in reporting; and

(D) The date by which you propose to submit the notification or report, or if you have already met the electronic submittal requirement in this paragraph (k) at the time of the notification, the date you submitted the notification or report.

(iv) The decision to accept the claim of force majeure and allow an extension to the submittal deadline is solely within the discretion of the Administrator.

(v) In any circumstance, the reporting must occur as soon as possible after the force majeure event occurs.

(3) If you wish to assert a CBI claim for some of the information submitted under paragraph (k) of this section, you must submit a complete file, including information claimed to be CBI, to the EPA following the procedures in paragraphs (k)(3)(i) through (iv) of this section. Where a subpart specifies a specific file format for the report or notification for which you are asserting a claim of CBI, the complete file that you submit under this paragraph (k)(3) must be in the same file format specified in the subpart.

(i) Clearly mark the part or all of the information that you claim to be CBI. Information not marked as CBI may be authorized for public release without prior notice. Information marked as CBI will not be disclosed except in accordance with procedures set forth in 40 CFR part 2. All CBI claims must be asserted at the time of submission. Anything submitted using CEDRI cannot later

be claimed CBI. Furthermore, under CAA section 114(c), emissions data are not entitled to confidential treatment, and the EPA is required to make emissions data available to the public. Thus, emissions data will not be protected as CBI and will be made publicly available.

(ii) You must submit the same file submitted to the CBI office with the CBI omitted to the EPA via the EPA's CDX as described in paragraph (k) of this section.

(iii) The preferred method to receive CBI is for it to be transmitted electronically using email attachments, File Transfer Protocol, or other online file sharing services. Electronic submissions must be transmitted directly to the OAQPS CBI Office at the email address oaqpscbi@epa.gov, and as described above, should include clear CBI markings. Electronic Reporting Tool (ERT) files should be flagged to the attention of the Group Leader, Measurement Policy Group; all other files should be flagged to the attention of the Sector Lead for the subpart for which you are submitting your notification or report. If assistance is needed with submitting large electronic files that exceed the file size limit for email attachments, and if you do not have your own file sharing service, please email oaqpscbi@epa.gov to request a file transfer link.

(iv) If you cannot transmit the file electronically, you may send CBI information through the postal service to the following address: U.S. EPA, Attn: OAQPS Document Control Officer, Mail Drop: C404-02, 109 T.W. Alexander Drive, P.O. Box 12055, RTP, NC 27711. ERT files should also be flagged to the attention of the Group Leader, Measurement Policy Group; all other files should also be flagged to the attention of the Sector Lead for the subpart for which you are submitting your notification or report. The mailed CBI material should be double wrapped and clearly marked. Any CBI markings should not show through the outer envelope.

§ 63.10 Recordkeeping and reporting requirements.

(a) Applicability and general information.

(1) The applicability of this section is set out in § 63.1(a)(4).

(2) For affected sources that have been granted an extension of compliance under subpart D of this part, the requirements of this section do not apply to those sources while they are operating under such compliance extensions.

(3) If any State requires a report that contains all the information required in a report listed in this section, an owner or operator may send the Administrator a copy of the report sent to the State to satisfy the requirements of this section for that report.

(4) (i) Before a State has been delegated the authority to implement and enforce recordkeeping and reporting requirements established under this part, the owner or operator of an affected source in such State subject to such requirements shall submit reports to the appropriate Regional Office of the EPA (to the attention of the Director of the Division indicated in the list of the EPA Regional Offices in § 63.13).

(ii) After a State has been delegated the authority to implement and enforce recordkeeping and reporting requirements established under this part, the owner or operator of an affected source in such State subject to such requirements shall submit reports to the delegated State authority (which may be the same as the permitting authority). In addition, if the delegated (permitting) authority is the State, the owner or operator shall send a copy of each report

submitted to the State to the appropriate Regional Office of the EPA, as specified in paragraph (a)(4)(i) of this section. The Regional Office may waive this requirement for any reports at its discretion.

(5) If an owner or operator of an affected source in a State with delegated authority is required to submit periodic reports under this part to the State, and if the State has an established timeline for the submission of periodic reports that is consistent with the reporting frequency(ies) specified for such source under this part, the owner or operator may change the dates by which periodic reports under this part shall be submitted (without changing the frequency of reporting) to be consistent with the State's schedule by mutual agreement between the owner or operator and the State. For each relevant standard established pursuant to section 112 of the Act, the allowance in the previous sentence applies in each State beginning 1 year after the affected source's compliance date for that standard. Procedures governing the implementation of this provision are specified in § 63.9(i).

(6) If an owner or operator supervises one or more stationary sources affected by more than one standard established pursuant to section 112 of the Act, he/she may arrange by mutual agreement between the owner or operator and the Administrator (or the State permitting authority) a common schedule on which periodic reports required for each source shall be submitted throughout the year. The allowance in the previous sentence applies in each State beginning 1 year after the latest compliance date for any relevant standard established pursuant to section 112 of the Act for any such affected source(s). Procedures governing the implementation of this provision are specified in § 63.9(i).

(7) If an owner or operator supervises one or more stationary sources affected by standards established pursuant to section 112 of the Act (as amended November 15, 1990) and standards set under part 60, part 61, or both such parts of this chapter, he/she may arrange by mutual agreement between the owner or operator and the Administrator (or the State permitting authority) a common schedule on which periodic reports required by each relevant (i.e., applicable) standard shall be submitted throughout the year. The allowance in the previous sentence applies in each State beginning 1 year after the stationary source is required to be in compliance with the relevant section 112 standard, or 1 year after the stationary source is required to be in compliance with the applicable part 60 or part 61 standard, whichever is latest. Procedures governing the implementation of this provision are specified in § 63.9(i).

(b) General recordkeeping requirements.

(1) The owner or operator of an affected source subject to the provisions of this part shall maintain files of all information (including all reports and notifications) required by this part recorded in a form suitable and readily available for expeditious inspection and review. The files shall be retained for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent 2 years of data shall be retained on site. The remaining 3 years of data may be retained off site. Such files may be maintained on microfilm, on a computer, on computer floppy disks, on magnetic tape disks, or on microfiche.

(2) The owner or operator of an affected source subject to the provisions of this part shall maintain relevant records for such source of -

- (i) The occurrence and duration of each startup or shutdown when the startup or shutdown causes the source to exceed any applicable emission limitation in the relevant emission standards;
- (ii) The occurrence and duration of each malfunction of operation (i.e., process equipment) or the required air pollution control and monitoring equipment;
- (iii) All required maintenance performed on the air pollution control and monitoring equipment;
- (iv) (A) Actions taken during periods of startup or shutdown when the source exceeded applicable emission limitations in a relevant standard and when the actions taken are different from the procedures specified in the affected source's startup, shutdown, and malfunction plan (see § 63.6(e)(3)); or
(B) Actions taken during periods of malfunction (including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation) when the actions taken are different from the procedures specified in the affected source's startup, shutdown, and malfunction plan (see § 63.6(e)(3));
- (v) All information necessary, including actions taken, to demonstrate conformance with the affected source's startup, shutdown, and malfunction plan (see § 63.6(e)(3)) when all actions taken during periods of startup or shutdown (and the startup or shutdown causes the source to exceed any applicable emission limitation in the relevant emission standards), and malfunction (including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation) are consistent with the procedures specified in such plan. (The information needed to demonstrate conformance with the startup, shutdown, and malfunction plan may be recorded using a "checklist," or some other effective form of recordkeeping, in order to minimize the recordkeeping burden for conforming events);
- (vi) Each period during which a CMS is malfunctioning or inoperative (including out-of-control periods);
- (vii) All required measurements needed to demonstrate compliance with a relevant standard (including, but not limited to, 15-minute averages of CMS data, raw performance testing measurements, and raw performance evaluation measurements, that support data that the source is required to report);
 - (A) This paragraph applies to owners or operators required to install a continuous emissions monitoring system (CEMS) where the CEMS installed is automated, and where the calculated data averages do not exclude periods of CEMS breakdown or malfunction. An automated CEMS records and reduces the measured data to the form of the pollutant emission standard through the use of a computerized data acquisition system. In lieu of maintaining a file of all CEMS subhourly measurements as required under paragraph (b)(2)(vii) of this section, the owner or operator shall retain the most recent consecutive three averaging periods of subhourly measurements and a file that

contains a hard copy of the data acquisition system algorithm used to reduce the measured data into the reportable form of the standard.

(B) This paragraph applies to owners or operators required to install a CEMS where the measured data is manually reduced to obtain the reportable form of the standard, and where the calculated data averages do not exclude periods of CEMS breakdown or malfunction. In lieu of maintaining a file of all CEMS subhourly measurements as required under paragraph (b)(2)(vii) of this section, the owner or operator shall retain all subhourly measurements for the most recent reporting period. The subhourly measurements shall be retained for 120 days from the date of the most recent summary or excess emission report submitted to the Administrator.

(C) The Administrator or delegated authority, upon notification to the source, may require the owner or operator to maintain all measurements as required by paragraph (b)(2)(vii), if the administrator or the delegated authority determines these records are required to more accurately assess the compliance status of the affected source.

(viii) All results of performance tests, CMS performance evaluations, and opacity and visible emission observations;

(ix) All measurements as may be necessary to determine the conditions of performance tests and performance evaluations;

(x) All CMS calibration checks;

(xi) All adjustments and maintenance performed on CMS;

(xii) Any information demonstrating whether a source is meeting the requirements for a waiver of recordkeeping or reporting requirements under this part, if the source has been granted a waiver under paragraph (f) of this section;

(xiii) All emission levels relative to the criterion for obtaining permission to use an alternative to the relative accuracy test, if the source has been granted such permission under § 63.8(f)(6); and

(xiv) All documentation supporting initial notifications and notifications of compliance status under § 63.9.

(3) If an owner or operator determines that his or her existing or new stationary source is in the source category regulated by a standard established pursuant to section 112 of the Act, but that source is not subject to the relevant standard (or other requirement established under this part) because of enforceable limitations on the source's potential to emit, or the source otherwise qualifies for an exclusion, the owner or operator must keep a record of the applicability determination. The applicability determination must be kept on site at the source for a period of 5 years after the determination, or until the source changes its operations to become an affected source subject to the relevant standard (or other requirement established under this part), whichever comes first if the determination is made prior to January 19, 2021. The applicability determination must be kept until the source changes its operations to become an affected source subject to the relevant standard (or other requirement established under this part) if the determination was made on or after January 19, 2021. The record of the applicability determination must be signed by the person making the

determination and include an emissions analysis (or other information) that demonstrates the owner or operator's conclusion that the source is unaffected (*e.g.*, because the source is an area source). The analysis (or other information) must be sufficiently detailed to allow the Administrator to make an applicability finding for the source with regard to the relevant standard or other requirement. If applicable, the analysis must be performed in accordance with requirements established in relevant subparts of this part for this purpose for particular categories of stationary sources. If relevant, the analysis should be performed in accordance with EPA guidance materials published to assist sources in making applicability determinations under section 112 of the Act, if any. The requirements to determine applicability of a standard under § 63.1(b)(3) and to record the results of that determination under this paragraph (b)(3) of this section shall not by themselves create an obligation for the owner or operator to obtain a title V permit.

(c) *Additional recordkeeping requirements for sources with continuous monitoring systems.* In addition to complying with the requirements specified in paragraphs (b)(1) and (b)(2) of this section, the owner or operator of an affected source required to install a CMS by a relevant standard shall maintain records for such source of -

- (1) All required CMS measurements (including monitoring data recorded during unavoidable CMS breakdowns and out-of-control periods);
- (2)-(4) [Reserved]
- (5) The date and time identifying each period during which the CMS was inoperative except for zero (low-level) and high-level checks;
- (6) The date and time identifying each period during which the CMS was out of control, as defined in § 63.8(c)(7);
- (7) The specific identification (i.e., the date and time of commencement and completion) of each period of excess emissions and parameter monitoring exceedances, as defined in the relevant standard(s), that occurs during startups, shutdowns, and malfunctions of the affected source;
- (8) The specific identification (i.e., the date and time of commencement and completion) of each time period of excess emissions and parameter monitoring exceedances, as defined in the relevant standard(s), that occurs during periods other than startups, shutdowns, and malfunctions of the affected source;
- (9) [Reserved]
- (10) The nature and cause of any malfunction (if known);
- (11) The corrective action taken or preventive measures adopted;
- (12) The nature of the repairs or adjustments to the CMS that was inoperative or out of control;
- (13) The total process operating time during the reporting period; and
- (14) All procedures that are part of a quality control program developed and implemented for CMS under § 63.8(d).
- (15) In order to satisfy the requirements of paragraphs (c)(10) through (c)(12) of this section and to avoid duplicative recordkeeping efforts, the owner or operator may use the affected source's startup,

shutdown, and malfunction plan or records kept to satisfy the recordkeeping requirements of the startup, shutdown, and malfunction plan specified in § 63.6(e), provided that such plan and records adequately address the requirements of paragraphs (c)(10) through (c)(12).

(d) *General reporting requirements.*

(1) Notwithstanding the requirements in this paragraph or paragraph (e) of this section, and except as provided in § 63.16, the owner or operator of an affected source subject to reporting requirements under this part shall submit reports to the Administrator in accordance with the reporting requirements in the relevant standard(s).

(2) *Reporting results of performance tests.* Before a title V permit has been issued to the owner or operator of an affected source, the owner or operator shall report the results of any performance test under § 63.7 to the Administrator. After a title V permit has been issued to the owner or operator of an affected source, the owner or operator shall report the results of a required performance test to the appropriate permitting authority. The owner or operator of an affected source shall report the results of the performance test to the Administrator (or the State with an approved permit program) before the close of business on the 60th day following the completion of the performance test, unless specified otherwise in a relevant standard or as approved otherwise in writing by the Administrator. The results of the performance test shall be submitted as part of the notification of compliance status required under § 63.9(h).

(3) *Reporting results of opacity or visible emission observations.* The owner or operator of an affected source required to conduct opacity or visible emission observations by a relevant standard shall report the opacity or visible emission results (produced using Test Method 9 or Test Method 22, or an alternative to these test methods) along with the results of the performance test required under § 63.7. If no performance test is required, or if visibility or other conditions prevent the opacity or visible emission observations from being conducted concurrently with the performance test required under § 63.7, the owner or operator shall report the opacity or visible emission results before the close of business on the 30th day following the completion of the opacity or visible emission observations.

(4) *Progress reports.* The owner or operator of an affected source who is required to submit progress reports as a condition of receiving an extension of compliance under § 63.6(i) shall submit such reports to the Administrator (or the State with an approved permit program) by the dates specified in the written extension of compliance.

(5) (i) *Periodic startup, shutdown, and malfunction reports.* If actions taken by an owner or operator during a startup or shutdown (and the startup or shutdown causes the source to exceed any applicable emission limitation in the relevant emission standards), or malfunction of an affected source (including actions taken to correct a malfunction) are consistent with the procedures specified in the source's startup, shutdown, and malfunction plan (see § 63.6(e)(3)), the owner or operator shall state such information in a startup, shutdown, and malfunction report. Actions taken to minimize emissions during such startups, shutdowns, and malfunctions shall be summarized in the report and may be done in checklist form; if actions taken are the same for each event, only one checklist is necessary. Such a report shall also include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. Reports shall only be required if a startup or shutdown caused the

source to exceed any applicable emission limitation in the relevant emission standards, or if a malfunction occurred during the reporting period. The startup, shutdown, and malfunction report shall consist of a letter, containing the name, title, and signature of the owner or operator or other responsible official who is certifying its accuracy, that shall be submitted to the Administrator semiannually (or on a more frequent basis if specified otherwise in a relevant standard or as established otherwise by the permitting authority in the source's title V permit). The startup, shutdown, and malfunction report shall be delivered or postmarked by the 30th day following the end of each calendar half (or other calendar reporting period, as appropriate). If the owner or operator is required to submit excess emissions and continuous monitoring system performance (or other periodic) reports under this part, the startup, shutdown, and malfunction reports required under this paragraph may be submitted simultaneously with the excess emissions and continuous monitoring system performance (or other) reports. If startup, shutdown, and malfunction reports are submitted with excess emissions and continuous monitoring system performance (or other periodic) reports, and the owner or operator receives approval to reduce the frequency of reporting for the latter under paragraph (e) of this section, the frequency of reporting for the startup, shutdown, and malfunction reports also may be reduced if the Administrator does not object to the intended change. The procedures to implement the allowance in the preceding sentence shall be the same as the procedures specified in paragraph (e)(3) of this section.

(ii) *Immediate startup, shutdown, and malfunction reports.* Notwithstanding the allowance to reduce the frequency of reporting for periodic startup, shutdown, and malfunction reports under paragraph (d)(5)(i) of this section, any time an action taken by an owner or operator during a startup or shutdown that caused the source to exceed any applicable emission limitation in the relevant emission standards, or malfunction (including actions taken to correct a malfunction) is not consistent with the procedures specified in the affected source's startup, shutdown, and malfunction plan, the owner or operator shall report the actions taken for that event within 2 working days after commencing actions inconsistent with the plan followed by a letter within 7 working days after the end of the event. The immediate report required under this paragraph (d)(5)(ii) shall consist of a telephone call (or facsimile (FAX) transmission) to the Administrator within 2 working days after commencing actions inconsistent with the plan, and it shall be followed by a letter, delivered or postmarked within 7 working days after the end of the event, that contains the name, title, and signature of the owner or operator or other responsible official who is certifying its accuracy, explaining the circumstances of the event, the reasons for not following the startup, shutdown, and malfunction plan, describing all excess emissions and/or parameter monitoring exceedances which are believed to have occurred (or could have occurred in the case of malfunctions), and actions taken to minimize emissions in conformance with § 63.6(e)(1)(i). Notwithstanding the requirements of the previous sentence, after the effective date of an approved permit program in the State in which an affected source is located, the owner or operator may make alternative reporting arrangements, in advance, with the permitting authority in that State. Procedures governing the arrangement of alternative reporting requirements under this paragraph (d)(5)(ii) are specified in § 63.9(i).

(e) *Additional reporting requirements for sources with continuous monitoring systems -*

(1) *General.* When more than one CEMS is used to measure the emissions from one affected source (e.g., multiple breechings, multiple outlets), the owner or operator shall report the results as required for each CEMS.

(2) *Reporting results of continuous monitoring system performance evaluations.*

(i) The owner or operator of an affected source required to install a CMS by a relevant standard shall furnish the Administrator a copy of a written report of the results of the CMS performance evaluation, as required under § 63.8(e), simultaneously with the results of the performance test required under § 63.7, unless otherwise specified in the relevant standard.

(ii) The owner or operator of an affected source using a COMS to determine opacity compliance during any performance test required under § 63.7 and described in § 63.6(d)(6) shall furnish the Administrator two or, upon request, three copies of a written report of the results of the COMS performance evaluation conducted under § 63.8(e). The copies shall be furnished at least 15 calendar days before the performance test required under § 63.7 is conducted.

(3) *Excess emissions and continuous monitoring system performance report and summary report.*

(i) Excess emissions and parameter monitoring exceedances are defined in relevant standards. The owner or operator of an affected source required to install a CMS by a relevant standard shall submit an excess emissions and continuous monitoring system performance report and/or a summary report to the Administrator semiannually, except when -

(A) More frequent reporting is specifically required by a relevant standard;

(B) The Administrator determines on a case-by-case basis that more frequent reporting is necessary to accurately assess the compliance status of the source; or

(C) [Reserved]

(D) The affected source is complying with the Performance Track Provisions of § 63.16, which allows less frequent reporting.

(ii) *Request to reduce frequency of excess emissions and continuous monitoring system performance reports.* Notwithstanding the frequency of reporting requirements specified in paragraph (e)(3)(i) of this section, an owner or operator who is required by a relevant standard to submit excess emissions and continuous monitoring system performance (and summary) reports on a quarterly (or more frequent) basis may reduce the frequency of reporting for that standard to semiannual if the following conditions are met:

(A) For 1 full year (e.g., 4 quarterly or 12 monthly reporting periods) the affected source's excess emissions and continuous monitoring system performance reports continually demonstrate that the source is in compliance with the relevant standard;

(B) The owner or operator continues to comply with all recordkeeping and monitoring requirements specified in this subpart and the relevant standard; and

(C) The Administrator does not object to a reduced frequency of reporting for the affected source, as provided in paragraph (e)(3)(iii) of this section.

(iii) The frequency of reporting of excess emissions and continuous monitoring system performance (and summary) reports required to comply with a relevant standard may be reduced only after the owner or operator notifies the Administrator in writing of his or her intention to make such a change and the Administrator does not object to the intended change. In deciding whether to approve a reduced frequency of reporting, the Administrator may review information concerning the source's entire previous performance history during the 5-year recordkeeping period prior to the intended change, including performance test results, monitoring data, and evaluations of an owner or operator's conformance with operation and maintenance requirements. Such information may be used by the Administrator to make a judgment about the source's potential for noncompliance in the future. If the Administrator disapproves the owner or operator's request to reduce the frequency of reporting, the Administrator will notify the owner or operator in writing within 45 days after receiving notice of the owner or operator's intention. The notification from the Administrator to the owner or operator will specify the grounds on which the disapproval is based. In the absence of a notice of disapproval within 45 days, approval is automatically granted.

(iv) As soon as CMS data indicate that the source is not in compliance with any emission limitation or operating parameter specified in the relevant standard, the frequency of reporting shall revert to the frequency specified in the relevant standard, and the owner or operator shall submit an excess emissions and continuous monitoring system performance (and summary) report for the noncomplying emission points at the next appropriate reporting period following the noncomplying event. After demonstrating ongoing compliance with the relevant standard for another full year, the owner or operator may again request approval from the Administrator to reduce the frequency of reporting for that standard, as provided for in paragraphs (e)(3)(ii) and (e)(3)(iii) of this section.

(v) *Content and submittal dates for excess emissions and monitoring system performance reports.* All excess emissions and monitoring system performance reports and all summary reports, if required, shall be delivered or postmarked by the 30th day following the end of each calendar half or quarter, as appropriate. Written reports of excess emissions or exceedances of process or control system parameters shall include all the information required in paragraphs (c)(5) through (c)(13) of this section, in §§ 63.8(c)(7) and 63.8(c)(8), and in the relevant standard, and they shall contain the name, title, and signature of the responsible official who is certifying the accuracy of the report. When no excess emissions or exceedances of a parameter have occurred, or a CMS has not been inoperative, out of control, repaired, or adjusted, such information shall be stated in the report.

(vi) *Summary report.* As required under paragraphs (e)(3)(vii) and (e)(3)(viii) of this section, one summary report shall be submitted for the hazardous air pollutants monitored at each affected source (unless the relevant standard specifies that more than one summary report is required, e.g., one summary report for each hazardous air pollutant monitored). The summary report shall be entitled "Summary Report - Gaseous and Opacity Excess Emission and Continuous Monitoring System Performance" and shall contain the following information:

(A) The company name and address of the affected source;

(B) An identification of each hazardous air pollutant monitored at the affected source;

- (C) The beginning and ending dates of the reporting period;
- (D) A brief description of the process units;
- (E) The emission and operating parameter limitations specified in the relevant standard(s);
- (F) The monitoring equipment manufacturer(s) and model number(s);
- (G) The date of the latest CMS certification or audit;
- (H) The total operating time of the affected source during the reporting period;
- (I) An emission data summary (or similar summary if the owner or operator monitors control system parameters), including the total duration of excess emissions during the reporting period (recorded in minutes for opacity and hours for gases), the total duration of excess emissions expressed as a percent of the total source operating time during that reporting period, and a breakdown of the total duration of excess emissions during the reporting period into those that are due to startup/shutdown, control equipment problems, process problems, other known causes, and other unknown causes;
- (J) A CMS performance summary (or similar summary if the owner or operator monitors control system parameters), including the total CMS downtime during the reporting period (recorded in minutes for opacity and hours for gases), the total duration of CMS downtime expressed as a percent of the total source operating time during that reporting period, and a breakdown of the total CMS downtime during the reporting period into periods that are due to monitoring equipment malfunctions, nonmonitoring equipment malfunctions, quality assurance/quality control calibrations, other known causes, and other unknown causes;
- (K) A description of any changes in CMS, processes, or controls since the last reporting period;
- (L) The name, title, and signature of the responsible official who is certifying the accuracy of the report; and
- (M) The date of the report.

(vii) If the total duration of excess emissions or process or control system parameter exceedances for the reporting period is less than 1 percent of the total operating time for the reporting period, and CMS downtime for the reporting period is less than 5 percent of the total operating time for the reporting period, only the summary report shall be submitted, and the full excess emissions and continuous monitoring system performance report need not be submitted unless required by the Administrator.

(viii) If the total duration of excess emissions or process or control system parameter exceedances for the reporting period is 1 percent or greater of the total operating time for the reporting period, or the total CMS downtime for the reporting period is 5 percent or greater of the total operating time for the reporting period, both the summary report and the excess emissions and continuous monitoring system performance report shall be submitted.

(4) *Reporting continuous opacity monitoring system data produced during a performance test.* The owner or operator of an affected source required to use a COMS shall record the monitoring data produced during a performance test required under § 63.7 and shall furnish the Administrator a written report of the monitoring results. The report of COMS data shall be submitted simultaneously with the report of the performance test results required in paragraph (d)(2) of this section.

(f) *Waiver of recordkeeping or reporting requirements.*

(1) Until a waiver of a recordkeeping or reporting requirement has been granted by the Administrator under this paragraph, the owner or operator of an affected source remains subject to the requirements of this section.

(2) Recordkeeping or reporting requirements may be waived upon written application to the Administrator if, in the Administrator's judgment, the affected source is achieving the relevant standard(s), or the source is operating under an extension of compliance, or the owner or operator has requested an extension of compliance and the Administrator is still considering that request.

(3) If an application for a waiver of recordkeeping or reporting is made, the application shall accompany the request for an extension of compliance under § 63.6(i), any required compliance progress report or compliance status report required under this part (such as under §§ 63.6(i) and 63.9(h)) or in the source's title V permit, or an excess emissions and continuous monitoring system performance report required under paragraph (e) of this section, whichever is applicable. The application shall include whatever information the owner or operator considers useful to convince the Administrator that a waiver of recordkeeping or reporting is warranted.

(4) The Administrator will approve or deny a request for a waiver of recordkeeping or reporting requirements under this paragraph when he/she -

- (i) Approves or denies an extension of compliance; or
- (ii) Makes a determination of compliance following the submission of a required compliance status report or excess emissions and continuous monitoring systems performance report; or
- (iii) Makes a determination of suitable progress towards compliance following the submission of a compliance progress report, whichever is applicable.

(5) A waiver of any recordkeeping or reporting requirement granted under this paragraph may be conditioned on other recordkeeping or reporting requirements deemed necessary by the Administrator.

(6) Approval of any waiver granted under this section shall not abrogate the Administrator's authority under the Act or in any way prohibit the Administrator from later canceling the waiver. The cancellation will be made only after notice is given to the owner or operator of the affected source.

§ 63.11 Control device and work practice requirements.

(a) *Applicability.*

(1) The applicability of this section is set out in § 63.1(a)(4).

(2) This section contains requirements for control devices used to comply with applicable subparts of this part. The requirements are placed here for administrative convenience and apply only to facilities covered by subparts referring to this section.

(3) This section also contains requirements for an alternative work practice used to identify leaking equipment. This alternative work practice is placed here for administrative convenience and is available to all subparts in 40 CFR parts 60, 61, 63, and 65 that require monitoring of equipment with a 40 CFR part 60, appendix A-7, Method 21 monitor.

(b) *Flares.*

(1) Owners or operators using flares to comply with the provisions of this part shall monitor these control devices to assure that they are operated and maintained in conformance with their designs. Applicable subparts will provide provisions stating how owners or operators using flares shall monitor these control devices.

(2) Flares shall be steam-assisted, air-assisted, or non-assisted.

(3) Flares shall be operated at all times when emissions may be vented to them.

(4) Flares shall be designed for and operated with no visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours. Test Method 22 in appendix A of part 60 of this chapter shall be used to determine the compliance of flares with the visible emission provisions of this part. The observation period is 2 hours and shall be used according to Method 22.

(5) Flares shall be operated with a flame present at all times. The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame.

(6) An owner/operator has the choice of adhering to the heat content specifications in paragraph (b)(6)(ii) of this section, and the maximum tip velocity specifications in paragraph (b)(7) or (b)(8) of this section, or adhering to the requirements in paragraph (b)(6)(i) of this section.

(i) (A) Flares shall be used that have a diameter of 3 inches or greater, are nonassisted, have a hydrogen content of 8.0 percent (by volume) or greater, and are designed for and operated with an exit velocity less than 37.2 m/sec (122 ft/sec) and less than the velocity $V_{\max}$, as determined by the following equation:

$$V_{\max} = (X_{H_2} - K_1) * K_2$$

Where:

$V_{\max}$ = Maximum permitted velocity, m/sec.

K_1 = Constant, 6.0 volume-percent hydrogen.

K_2 = Constant, 3.9(m/sec)/volume-percent hydrogen.

X_{H_2} = The volume-percent of hydrogen, on a wet basis, as calculated by using the American Society for Testing and Materials (ASTM) Method D1946-77. (Incorporated by reference as specified in § 63.14).

(B) The actual exit velocity of a flare shall be determined by the method specified in paragraph (b)(7)(i) of this section.

(ii) Flares shall be used only with the net heating value of the gas being combusted at 11.2 MJ/scm (300 Btu/scf) or greater if the flare is steam-assisted or air-assisted; or with the net heating value of the gas being combusted at 7.45 MJ/scm (200 Btu/scf) or greater if the flares is non-assisted. The net heating value of the gas being combusted in a flare shall be calculated using the following equation:

$$H_T = K \sum_{i=1}^n C_i H_i$$

Where:

H_T = Net heating value of the sample, MJ/scm; where the net enthalpy per mole of offgas is based on combustion at 25 °C and 760 mm Hg, but the standard temperature for determining the volume corresponding to one mole is 20 °C.

K = Constant =

$$1.740 \times 10^{-7} \left(\frac{1}{\text{ppmv}} \right) \left(\frac{\text{g-mole}}{\text{scm}} \right) \left(\frac{\text{MJ}}{\text{kcal}} \right)$$

where the standard temperature for (g-mole/scm) is 20 °C.

C_i = Concentration of sample component i in ppmv on a wet basis, as measured for organics by Test Method 18 and measured for hydrogen and carbon monoxide by American Society for Testing and Materials (ASTM) D1946-77 or 90 (Reapproved 1994) (incorporated by reference as specified in § 63.14).

H_i = Net heat of combustion of sample component i , kcal/g-mole at 25 °C and 760 mm Hg. The heats of combustion may be determined using ASTM D2382-76 or 88 or D4809-95 (incorporated by reference as specified in § 63.14) if published values are not available or cannot be calculated.

n = Number of sample components.

(7) (i) Steam-assisted and nonassisted flares shall be designed for and operated with an exit velocity less than 18.3 m/sec (60 ft/sec), except as provided in paragraphs (b)(7)(ii) and (b)(7)(iii) of this section. The actual exit velocity of a flare shall be determined by dividing by the volumetric flow rate of gas being combusted (in units of emission standard temperature and pressure), as determined by Test Method 2, 2A, 2C, or 2D in appendix A to 40 CFR part 60 of this chapter, as appropriate, by the unobstructed (free) cross-sectional area of the flare tip.

(ii) Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the method specified in paragraph (b)(7)(i) of this section, equal to or greater than 18.3 m/sec (60 ft/sec) but less than 122 m/sec (400 ft/sec), are allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1,000 Btu/scf).

(iii) Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the method specified in paragraph (b)(7)(i) of this section, less than the velocity V_{max} , as determined by the method specified in this paragraph, but less than 122 m/sec (400

ft/sec) are allowed. The maximum permitted velocity, $V_{\max}$, for flares complying with this paragraph shall be determined by the following equation:

$$\text{Log}_{10}(V_{\max}) = (H_T + 28.8)/31.7$$

Where:

$V_{\max}$ = Maximum permitted velocity, m/sec.

28.8 = Constant.

31.7 = Constant.

H_T = The net heating value as determined in paragraph (b)(6) of this section.

(8) Air-assisted flares shall be designed and operated with an exit velocity less than the velocity $V_{\max}$. The maximum permitted velocity, $V_{\max}$, for air-assisted flares shall be determined by the following equation:

$$V_{\max} = 8.71 + 0.708(H_T)$$

Where:

$V_{\max}$ = Maximum permitted velocity, m/sec.

8.71 = Constant.

0.708 = Constant.

H_T = The net heating value as determined in paragraph (b)(6)(ii) of this section.

(c) *Alternative work practice for monitoring equipment for leaks.* Paragraphs (c), (d), and (e) of this section apply to all equipment for which the applicable subpart requires monitoring with a 40 CFR part 60, appendix A-7, Method 21 monitor, except for closed vent systems, equipment designated as leakless, and equipment identified in the applicable subpart as having no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background. An owner or operator may use an optical gas imaging instrument instead of a 40 CFR part 60, appendix A-7, Method 21 monitor. Requirements in the existing subparts that are specific to the Method 21 instrument do not apply under this section. All other requirements in the applicable subpart that are not addressed in paragraphs (c), (d), and (e) of this section continue to apply. For example, equipment specification requirements, and non-Method 21 instrument recordkeeping and reporting requirements in the applicable subpart continue to apply. The terms defined in paragraphs (c)(1) through (5) of this section have meanings that are specific to the alternative work practice standard in paragraphs (c), (d), and (e) of this section.

(1) *Applicable subpart* means the subpart in 40 CFR parts 60, 61, 63, and 65 that requires monitoring of equipment with a 40 CFR part 60, appendix A-7, Method 21 monitor.

(2) *Equipment* means pumps, valves, pressure relief valves, compressors, open-ended lines, flanges, connectors, and other equipment covered by the applicable subpart that require monitoring with a 40 CFR part 60, appendix A-7, Method 21 monitor.

(3) *Imaging* means making visible emissions that may otherwise be invisible to the naked eye.

(4) *Optical gas imaging instrument* means an instrument that makes visible emissions that may otherwise be invisible to the naked eye.

(5) *Repair* means that equipment is adjusted, or otherwise altered, in order to eliminate a leak.

(6) *Leak* means:

- (i) Any emissions imaged by the optical gas instrument;
- (ii) Indications of liquids dripping;
- (iii) Indications by a sensor that a seal or barrier fluid system has failed; or
- (iv) Screening results using a 40 CFR part 60, appendix A-7, Method 21 monitor that exceed the leak definition in the applicable subpart to which the equipment is subject.

(d) The alternative work practice standard for monitoring equipment for leaks is available to all subparts in 40 CFR parts 60, 61, 63, and 65 that require monitoring of equipment with a 40 CFR part 60, appendix A-7, Method 21 monitor.

(1) An owner or operator of an affected source subject to 40 CFR parts 60, 61, 63, or 65 can choose to comply with the alternative work practice requirements in paragraph (e) of this section instead of using the 40 CFR part 60, appendix A-7, Method 21 monitor to identify leaking equipment. The owner or operator must document the equipment, process units, and facilities for which the alternative work practice will be used to identify leaks.

(2) Any leak detected when following the leak survey procedure in paragraph (e)(3) of this section must be identified for repair as required in the applicable subpart.

(3) If the alternative work practice is used to identify leaks, re-screening after an attempted repair of leaking equipment must be conducted using either the alternative work practice or the 40 CFR part 60, Appendix A-7, Method 21 monitor at the leak definition required in the applicable subparts to which the equipment is subject.

(4) The schedule for repair is as required in the applicable subpart.

(5) When this alternative work practice is used for detecting leaking equipment, choose one of the monitoring frequencies listed in Table 1 to subpart A of this part in lieu of the monitoring frequency specified for regulated equipment in the applicable subpart. Reduced monitoring frequencies for good performance are not applicable when using the alternative work practice.

(6) When this alternative work practice is used for detecting leaking equipment, the following are not applicable for the equipment being monitored:

- (i) Skip period leak detection and repair;
- (ii) Quality improvement plans; or
- (iii) Complying with standards for allowable percentage of valves and pumps to leak.

(7) When the alternative work practice is used to detect leaking equipment, the regulated equipment in paragraph (d)(1)(i) of this section must also be monitored annually using a 40 CFR part 60, Appendix A-7, Method 21 monitor at the leak definition required in the applicable subpart. The owner or operator may choose the specific monitoring period (for example, first quarter) to conduct the annual monitoring. Subsequent monitoring must be conducted every 12 months from the initial period.

Owners or operators must keep records of the annual Method 21 screening results, as specified in paragraph (i)(4)(vii) of this section.

(e) An owner or operator of an affected source who chooses to use the alternative work practice must comply with the requirements of paragraphs (e)(1) through (e)(5) of this section.

(1) *Instrument specifications.* The optical gas imaging instrument must comply with the requirements specified in paragraphs (e)(1)(i) and (e)(1)(ii) of this section.

(i) Provide the operator with an image of the potential leak points for each piece of equipment at both the detection sensitivity level and within the distance used in the daily instrument check described in paragraph (e)(2) of this section. The detection sensitivity level depends upon the frequency at which leak monitoring is to be performed.

(ii) Provide a date and time stamp for video records of every monitoring event.

(2) *Daily instrument check.* On a daily basis, and prior to beginning any leak monitoring work, test the optical gas imaging instrument at the mass flow rate determined in paragraph (e)(2)(i) of this section in accordance with the procedure specified in paragraphs (e)(2)(ii) through (e)(2)(iv) of this section for each camera configuration used during monitoring (for example, different lenses used), unless an alternative method to demonstrate daily instrument checks has been approved in accordance with paragraph (e)(2)(v) of this section.

(i) Calculate the mass flow rate to be used in the daily instrument check by following the procedures in paragraphs (e)(2)(i)(A) and (e)(2)(i)(B) of this section.

(A) For a specified population of equipment to be imaged by the instrument, determine the piece of equipment in contact with the lowest mass fraction of chemicals that are detectable, within the distance to be used in paragraph (e)(2)(iv)(B) of this section, at or below the standard detection sensitivity level.

(B) Multiply the standard detection sensitivity level, corresponding to the selected monitoring frequency in Table 1 of subpart A of this part, by the mass fraction of detectable chemicals from the stream identified in paragraph (e)(2)(i)(A) of this section to determine the mass flow rate to be used in the daily instrument check, using the following equation.

$$E_{dic} = (E_{sds}) \sum_{i=1}^k x_i$$

Where:

E_{dic} = Mass flow rate for the daily instrument check, grams per hour

x_i = Mass fraction of detectable chemical(s) i seen by the optical gas imaging instrument, within the distance to be used in paragraph (e)(2)(iv)(B) of this section, at or below the standard detection sensitivity level, E_{sds} .

E_{sds} = Standard detection sensitivity level from Table 1 to subpart A, grams per hour

k = Total number of detectable chemicals emitted from the leaking equipment and seen by the optical gas imaging instrument.

- (ii) Start the optical gas imaging instrument according to the manufacturer's instructions, ensuring that all appropriate settings conform to the manufacturer's instructions.
 - (iii) Use any gas chosen by the user that can be viewed by the optical gas imaging instrument and that has a purity of no less than 98 percent.
 - (iv) Establish a mass flow rate by using the following procedures:
 - (A) Provide a source of gas where it will be in the field of view of the optical gas imaging instrument.
 - (B) Set up the optical gas imaging instrument at a recorded distance from the outlet or leak orifice of the flow meter that will not be exceeded in the actual performance of the leak survey. Do not exceed the operating parameters of the flow meter.
 - (C) Open the valve on the flow meter to set a flow rate that will create a mass emission rate equal to the mass rate calculated in paragraph (e)(2)(i) of this section while observing the gas flow through the optical gas imaging instrument viewfinder. When an image of the gas emission is seen through the viewfinder at the required emission rate, make a record of the reading on the flow meter.
 - (v) Repeat the procedures specified in paragraphs (e)(2)(ii) through (e)(2)(iv) of this section for each configuration of the optical gas imaging instrument used during the leak survey.
 - (vi) To use an alternative method to demonstrate daily instrument checks, apply to the Administrator for approval of the alternative under § 63.177 or § 63.178, whichever is applicable.
- (3) *Leak survey procedure.* Operate the optical gas imaging instrument to image every regulated piece of equipment selected for this work practice in accordance with the instrument manufacturer's operating parameters. All emissions imaged by the optical gas imaging instrument are considered to be leaks and are subject to repair. All emissions visible to the naked eye are also considered to be leaks and are subject to repair.
- (4) *Recordkeeping.* Keep the records described in paragraphs (e)(4)(i) through (e)(4)(vii) of this section:
- (i) The equipment, processes, and facilities for which the owner or operator chooses to use the alternative work practice.
 - (ii) The detection sensitivity level selected from Table 1 to subpart A of this part for the optical gas imaging instrument.
 - (iii) The analysis to determine the piece of equipment in contact with the lowest mass fraction of chemicals that are detectable, as specified in paragraph (e)(2)(i)(A) of this section.
 - (iv) The technical basis for the mass fraction of detectable chemicals used in the equation in paragraph (e)(2)(i)(B) of this section.
 - (v) The daily instrument check. Record the distance, per paragraph (e)(2)(iv)(B) of this section, and the flow meter reading, per paragraph (e)(2)(iv)(C) of this section, at which the leak was imaged. Keep a video record of the daily instrument check for each configuration of the optical gas imaging instrument used during the leak survey (for example, the daily instrument check

must be conducted for each lens used). The video record must include a time and date stamp for each daily instrument check. The video record must be kept for 5 years.

(vi) *Recordkeeping requirements in the applicable subpart.* A video record must be used to document the leak survey results. The video record must include a time and date stamp for each monitoring event. A video record can be used to meet the recordkeeping requirements of the applicable subparts if each piece of regulated equipment selected for this work practice can be identified in the video record. The video record must be kept for 5 years.

(vii) The results of the annual Method 21 screening required in paragraph (h)(7) of this section. Records must be kept for all regulated equipment specified in paragraph (h)(1) of this section. Records must identify the equipment screened, the screening value measured by Method 21, the time and date of the screening, and calibration information required in the existing applicable subparts.

(5) *Reporting.* Submit the reports required in the applicable subpart. Submit the records of the annual Method 21 screening required in paragraph (h)(7) of this section to the Administrator via e-mail to CCG-AWP@EPA.GOV.

§ 63.12 State authority and delegations.

(a) The provisions of this part shall not be construed in any manner to preclude any State or political subdivision thereof from -

(1) Adopting and enforcing any standard, limitation, prohibition, or other regulation applicable to an affected source subject to the requirements of this part, provided that such standard, limitation, prohibition, or regulation is not less stringent than any requirement applicable to such source established under this part;

(2) Requiring the owner or operator of an affected source to obtain permits, licenses, or approvals prior to initiating construction, reconstruction, modification, or operation of such source; or

(3) Requiring emission reductions in excess of those specified in subpart D of this part as a condition for granting the extension of compliance authorized by section 112(i)(5) of the Act.

(b) (1) Section 112(l) of the Act directs the Administrator to delegate to each State, when appropriate, the authority to implement and enforce standards and other requirements pursuant to section 112 for stationary sources located in that State. Because of the unique nature of radioactive material, delegation of authority to implement and enforce standards that control radionuclides may require separate approval.

(2) Subpart E of this part establishes procedures consistent with section 112(l) for the approval of State rules or programs to implement and enforce applicable Federal rules promulgated under the authority of section 112. Subpart E also establishes procedures for the review and withdrawal of section 112 implementation and enforcement authorities granted through a section 112(l) approval.

(c) All information required to be submitted to the EPA under this part also shall be submitted to the appropriate state agency of any state to which authority has been delegated under section 112(l) of the Act, provided that each specific delegation may exempt sources from a certain federal or state reporting requirement. Any information required to be submitted electronically by this part via the EPA's CEDRI

may, at the discretion of the delegated authority, satisfy the requirements of this paragraph. The Administrator may permit all or some of the information to be submitted to the appropriate state agency only, instead of to the EPA and the state agency with the exception of federal electronic reporting requirements under this part. Sources may not be exempted from federal electronic reporting requirements.

§ 63.13 Addresses of State air pollution control agencies and EPA Regional Offices.

(a) All requests, reports, applications, submittals, and other communications to the Administrator pursuant to this part shall be submitted to the appropriate Regional Office of the U.S. Environmental Protection Agency indicated in the following list of EPA Regional offices. If a request, report, application, submittal, or other communication is required by this part to be submitted electronically via the EPA's CEDRI then such submission satisfies the requirements of this paragraph (a).

EPA Region I (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont) Director, Enforcement and Compliance Assurance Division, U.S. EPA Region I, 5 Post Office Square - Suite 100 (04-2), Boston, MA 02109-3912, Attn: Air Compliance Clerk.

EPA Region II (New Jersey, New York, Puerto Rico, Virgin Islands), Director, Air and Waste Management Division, 26 Federal Plaza, New York, NY 10278.

EPA Region III (Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, West Virginia), Director, Air Protection Division, 1650 Arch Street, Philadelphia, PA 19103.

EPA Region IV (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee). Director, Air, Pesticides and Toxics Management Division, Atlanta Federal Center, 61 Forsyth Street, Atlanta, GA 30303-3104.

EPA Region V (Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin), Director, Air and Radiation Division, 77 West Jackson Blvd., Chicago, IL 60604-3507.

EPA Region VI (Arkansas, Louisiana, New Mexico, Oklahoma, Texas); Director; Enforcement and Compliance Assurance Division; U.S. Environmental Protection Agency, 1201 Elm Street, Suite 500, Mail Code 6ECD, Dallas, Texas 75270-2102.

EPA Region VII (Iowa, Kansas, Missouri, Nebraska), Director, Air and Waste Management Division, 11201 Renner Boulevard, Lenexa, Kansas 66219.

EPA Region VIII (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming) Director, Air and Toxics Technical Enforcement Program, Office of Enforcement, Compliance and Environmental Justice, Mail Code 8ENF-AT, 1595 Wynkoop Street, Denver, CO 80202-1129.

EPA Region IX (Arizona, California, Hawaii, Nevada; the territories of American Samoa and Guam; the Commonwealth of the Northern Mariana Islands; the territories of Baker Island, Howland Island, Jarvis Island, Johnston Atoll, Kingman Reef, Midway Atoll, Palmyra Atoll, and Wake Islands; and certain U.S. Government activities in the freely associated states of the Republic of the Marshall Islands, the Federated States of Micronesia, and the Republic of Palau), Director, Air Division, 75 Hawthorne Street, San Francisco, CA 94105.

EPA Region X (Alaska, Idaho, Oregon, Washington), Director, Office of Air Quality, 1200 Sixth Avenue (OAQ-107), Seattle, WA 98101.

(b) All information required to be submitted to the Administrator under this part also shall be submitted to the appropriate State agency of any State to which authority has been delegated under section 112(l) of the Act. The owner or operator of an affected source may contact the appropriate EPA Regional Office for the mailing addresses for those States whose delegation requests have been approved.

(c) If any State requires a submittal that contains all the information required in an application, notification, request, report, statement, or other communication required in this part, an owner or operator may send the appropriate Regional Office of the EPA a copy of that submittal to satisfy the requirements of this part for that communication.

§ 63.14 Incorporations by reference.

(a) The materials listed in this section are incorporated by reference into this part with the approval of the Director of the Federal Register under 5 U.S.C. 552(a) and 1 CFR part 51. To enforce any edition other than that specified in this section, a document must be published in the Federal Register and the material must be available to the public. All approved materials are available for inspection at the Air and Radiation Docket and Information Center (Air Docket) in the EPA Docket Center (EPA/DC) at Rm. 3334, EPA West Bldg., 1301 Constitution Ave. NW, Washington, DC. The EPA/DC Public Reading Room hours of operation are 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number of the EPA/DC Public Reading Room is (202) 566-1744, and the telephone number for the Air Docket is (202) 566-1742. These approved materials are also available for inspection at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email fedreg.legal@nara.gov or go to www.archives.gov/federal-register/cfr/ibr-locations.html. In addition, these materials are available from the following sources:

(b) American Conference of Governmental Industrial Hygienists (ACGIH), Customer Service Department, 1330 Kemper Meadow Drive, Cincinnati, Ohio 45240, telephone number (513) 742-2020.

(1) Industrial Ventilation: A Manual of Recommended Practice, 22nd Edition, 1995, Chapter 3, "Local Exhaust Hoods" and Chapter 5, "Exhaust System Design Procedure." IBR approved for §§ 63.843(b) and 63.844(b).

(2) Industrial Ventilation: A Manual of Recommended Practice, 23rd Edition, 1998, Chapter 3, "Local Exhaust Hoods" and Chapter 5, "Exhaust System Design Procedure." IBR approved for §§ 63.1503, 63.1506(c), 63.1512(e), Table 2 to subpart RRR, Table 3 to subpart RRR, and appendix A to subpart RRR, and § 63.2984(e).

(3) Industrial Ventilation: A Manual of Recommended Practice for Design, 27th Edition, 2010. IBR approved for §§ 63.1503, 63.1506(c), 63.1512(e), Table 2 to subpart RRR, Table 3 to subpart RRR, and appendix A to subpart RRR, and § 63.2984(e).

(c) American Petroleum Institute (API), 1220 L Street NW., Washington, DC 20005.

(1) API Publication 2517, Evaporative Loss from External Floating-Roof Tanks, Third Edition, February 1989, IBR approved for §§ 63.111, 63.1402, 63.2406 and 63.7944.

Note 1 to paragraph (c)(1):

API Publication 2517 available through reseller HIS Markit at <https://global.ihs.com/>

(2) API Publication 2518, Evaporative Loss from Fixed-roof Tanks, Second Edition, October 1991, IBR approved for § 63.150(g).

(3) API Manual of Petroleum Measurement Specifications (MPMS) Chapter 19.2 (API MPMS 19.2), Evaporative Loss From Floating-Roof Tanks, First Edition, April 1997, IBR approved for §§ 63.1251 and 63.12005.

(d) American Public Health Association, 1015 18th Street NW, Washington, DC 20036; phone (844) 232-3707; email: standardmethods@subscriptionoffice.com; website: www.standardmethods.org.

(1) Standard Method 5210, Biochemical Oxygen Demand (BOD), revised December 10, 2019; IBR approved for § 63.457(c)

(2) [Reserved]

(e) American Society of Heating, Refrigerating, and Air-Conditioning Engineers at 1791 Tullie Circle, NE., Atlanta, GA 30329 orders@ashrae.org.

(1) American Society of Heating, Refrigerating, and Air-Conditioning Engineers Method 52.1, *Gravimetric and Dust-Spot Procedures for Testing Air-Cleaning Devices Used in General Ventilation for Removing Particulate Matter* June 4, 1992; IBR approved for § 63.11516(d).

(2) ANSI/ASHRAE Standard 52.2–2017, *Method of Testing General Ventilation Air-Cleaning Devices for Removal Efficiency by Particle Size*, copyright 2017; IBR approved for § 63.11173(e).

(f) American Society of Mechanical Engineers (ASME), Three Park Avenue, New York, NY 10016–5990, Telephone (800) 843–2763, <http://www.asme.org>; also available from HIS, Incorporated, 15 Inverness Way East, Englewood, CO 80112, Telephone (877) 413–5184, <http://global.ihs.com>.

(1) ANSI/ASME PTC 19.10–1981, Flue and Exhaust Gas Analyses [Part 10, Instruments and Apparatus], issued August 31, 1981, IBR approved for §§ 63.309(k), 63.457(k), 63.772(e) and (h), 63.865(b), 63.997(e), 63.1282(d) and (g), and 63.1625(b), table 5 to subpart EEEE, §§ 63.3166(a), 63.3360(e), 63.3545(a), 63.3555(a), 63.4166(a), 63.4362(a), 63.4766(a), 63.4965(a), and 63.5160(d), table 4 to subpart UUUU, table 3 to subpart YYYY, §§ 63.7822(b), 63.7824(e), 63.7825(b), 63.8000(d), 63.9307(c), 63.9323(a), 63.9621(b) and (c), 63.11148(e), 63.11155(e), 63.11162(f), 63.11163(g), 63.11410(j), 63.11551(a), 63.11646(a), and 63.11945, and table 4 to subpart AAAAA, table 5 to subpart DDDDD, table 4 to subpart JJJJ, table 4 to subpart KKKKK, table 4 to subpart SSSSS, tables 4 and 5 of subpart UUUUU, table 1 to subpart ZZZZZ, and table 4 to subpart JJJJJ.

(2) [Reserved]

(g) The Association of Florida Phosphate Chemists, P.O. Box 1645, Bartow, Florida 33830.

(1) Book of Methods Used and Adopted By The Association of Florida Phosphate Chemists, Seventh Edition 1991:

(i) Section IX, Methods of Analysis for Phosphate Rock, No. 1 Preparation of Sample, IBR approved for § 63.606(f), § 63.626(f).

(ii) Section IX, Methods of Analysis for Phosphate Rock, No. 3 Phosphorus-P₂O₅ or Ca₃(PO₄)₂, Method A—Volumetric Method, IBR approved for § 63.606(f), § 63.626(f).

(iii) Section IX, Methods of Analysis for Phosphate Rock, No. 3 Phosphorus-P₂O₅ or Ca₃(PO₄)₂, Method B—Gravimetric Quimociac Method, IBR approved for § 63.606(f), § 63.626(f).

(iv) Section IX, Methods of Analysis For Phosphate Rock, No. 3 Phosphorus-P₂O₅ or Ca₃(PO₄)₂, Method C—Spectrophotometric Method, IBR approved for § 63.606(f), § 63.626(f).

(v) Section XI, Methods of Analysis for Phosphoric Acid, Superphosphate, Triple Superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus-P₂O₅, Method A—Volumetric Method, IBR approved for § 63.606(f), § 63.626(f), and (g).

(vi) Section XI, Methods of Analysis for Phosphoric Acid, Superphosphate, Triple Superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus-P₂O₅, Method B—Gravimetric Quimociac Method, IBR approved for § 63.606(f), § 63.626(f), and (g).

(vii) Section XI, Methods of Analysis for Phosphoric Acid, Superphosphate, Triple Superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus-P₂O₅, Method C—Spectrophotometric Method, IBR approved for § 63.606(f), § 63.626(f), and (g).

(2) [Reserved]

(h) Association of Official Analytical Chemists (AOAC) International, Customer Services, Suite 400, 2200 Wilson Boulevard, Arlington, Virginia 22201–3301, Telephone (703) 522–3032, Fax (703) 522–5468.

(1) AOAC Official Method 929.01 Sampling of Solid Fertilizers, Sixteenth edition, 1995, IBR approved for § 63.626(g).

(2) AOAC Official Method 929.02 Preparation of Fertilizer Sample, Sixteenth edition, 1995, IBR approved for § 63.626(g).

(3) AOAC Official Method 957.02 Phosphorus (Total) in Fertilizers, Preparation of Sample Solution, Sixteenth edition, 1995, IBR approved for § 63.626(g).

(4) AOAC Official Method 958.01 Phosphorus (Total) in Fertilizers, Spectrophotometric Molybdovanadophosphate Method, Sixteenth edition, 1995, IBR approved for § 63.626(g).

(5) AOAC Official Method 962.02 Phosphorus (Total) in Fertilizers, Gravimetric Quinolinium Molybdophosphate Method, Sixteenth edition, 1995, IBR approved for § 63.626(g).

(6) AOAC Official Method 969.02 Phosphorus (Total) in Fertilizers, Alkalimetric Quinolinium Molybdophosphate Method, Sixteenth edition, 1995, IBR approved for § 63.626(g).

(7) AOAC Official Method 978.01 Phosphorus (Total) in Fertilizers, Automated Method, Sixteenth edition, 1995, IBR approved for § 63.626(g).

(i) ASTM International, 100 Barr Harbor Drive, Post Office Box C700, West Conshohocken, PA 19428–2959, Telephone (610) 832–9585, <http://www.astm.org>; also available from ProQuest, 789 East Eisenhower Parkway, Ann Arbor, MI 48106–1346, Telephone (734) 761–4700, <http://www.proquest.com>.

(1) ASTM D95–05 (Reapproved 2010), Standard Test Method for Water in Petroleum Products and Bituminous Materials by Distillation, approved May 1, 2010, IBR approved for § 63.10005(i) and table 6 to subpart DDDDD.

(2) ASTM D240–09 Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter, approved July 1, 2009, IBR approved for table 6 to subpart DDDDD.

(3) ASTM Method D388–05, Standard Classification of Coals by Rank, approved September 15, 2005, IBR approved for §§ 63.7575, 63.10042, and 63.11237.

(4) ASTM Method D396–10, Standard Specification for Fuel Oils, including Appendix X1, approved October 1, 2010, IBR approved for § 63.10042.

(5) ASTM D396–10, Standard Specification for Fuel Oils, approved October 1, 2010, IBR approved for §§ 63.7575 and 63.11237.

(6) ASTM D523–89, Standard Test Method for Specular Gloss, IBR approved for § 63.782.

(7) ASTM D975–11b, Standard Specification for Diesel Fuel Oils, approved December 1, 2011, IBR approved for § 63.7575.

(8) ASTM D1193–77, Standard Specification for Reagent Water, IBR approved for appendix A to part 63: Method 306, Sections 7.1.1 and 7.4.2.

- (9) ASTM D1193–91, Standard Specification for Reagent Water, IBR approved for appendix A to part 63: Method 306, Sections 7.1.1 and 7.4.2.
- (10) ASTM D1331–89, Standard Test Methods for Surface and Interfacial Tension of Solutions of Surface Active Agents, IBR approved for appendix A to part 63: Method 306B, Sections 6.2, 11.1, and 12.2.2.
- (11) ASTM D1475–90, Standard Test Method for Density of Paint, Varnish Lacquer, and Related Products, IBR approved for appendix A to subpart II.
- (12) ASTM D1475–13, Standard Test Method for Density of Liquid Coatings, Inks, and Related Products, approved November 1, 2013, IBR approved for §§ 63.3151(b), 63.3941(b) and (c), 63.3951(c), 63.4141(b) and (c), 63.4551(c), 63.4741(b) and (c), 63.4751(c), and 63.4941(b) and (c).
- (13) ASTM Method D1835–05, Standard Specification for Liquefied Petroleum (LP) Gases, approved April 1, 2005, IBR approved for §§ 63.7575 and 63.11237.
- (14) ASTM D1945–03 (Reapproved 2010), Standard Test Method for Analysis of Natural Gas by Gas Chromatography, Approved January 1, 2010, IBR approved for §§ 63.670(j), 63.772(h), and 63.1282(g).
- (15) ASTM D1945–14, Standard Test Method for Analysis of Natural Gas by Gas Chromatography, Approved November 1, 2014, IBR approved for § 63.670(j).
- (16) ASTM D1946–77, Standard Method for Analysis of Reformed Gas by Gas Chromatography, IBR approved for § 63.11(b).
- (17) ASTM D1946–90 (Reapproved 1994), Standard Method for Analysis of Reformed Gas by Gas Chromatography, 1994, IBR approved for §§ 63.11(b), 63.987(b), and 63.1412.
- (18) ASTM D1963–85 (Reapproved 1996), Standard Test Method for Specific Gravity of Drying Oils, Varnishes, Resins, and Related Materials at 25/25 °C, approved November 29, 1985, IBR approved for § 63.3360(c).
- (19) ASTM D2013/D2013M–09, Standard Practice for Preparing Coal Samples for Analysis, (Approved November 1, 2009), IBR approved for table 6 to subpart DDDDD and table 5 to subpart JJJJJ.
- (20) ASTM D2099–00, Standard Test Method for Dynamic Water Resistance of Shoe Upper Leather by the Maeser Water Penetration Tester, IBR approved for § 63.5350.
- (21) ASTM D2111–10 (Reapproved 2015), Standard Test Methods for Specific Gravity and Density of Halogenated Organic Solvents and Their Admixtures, approved June 1, 2015, IBR approved for §§ 63.3360(c), 63.3951(c), 63.4141(b) and (c), 63.4551(c), and 63.4741(a).
- (22) ASTM D2216–05, Standard Test Methods for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass, IBR approved for the definition of “Free organic liquids” in § 63.10692.
- (23) ASTM D2234/D2234M–10, Standard Practice for Collection of a Gross Sample of Coal, approved January 1, 2010, IBR approved for table 6 to subpart DDDDD and table 5 to subpart JJJJJ.
- (24) ASTM D2369–93, Standard Test Method for Volatile Content of Coatings, IBR approved for appendix A to subpart II.
- (25) ASTM D2369–95, Standard Test Method for Volatile Content of Coatings, IBR approved for appendix A to subpart II.
- (26) ASTM D2369–10 (Reapproved 2015)e1, Standard Test Method for Volatile Content of Coatings, approved June 1, 2015, IBR approved for §§ 63.3151(a), 63.3360(c), 63.3961(j), 63.4141(a) and (b), 63.4161(h), 63.4321(e), 63.4341(e), 63.4351(d), 63.4541(a), and 63.4561(j), appendix A to subpart PPPP, and §§ 63.4741(a), 63.4941(a) and (b), 63.4961(j), and 63.8055(b).

- (27) ASTM D2382–76, Heat of Combustion of Hydrocarbon Fuels by Bomb Calorimeter (High-Precision Method), IBR approved for § 63.11(b).
- (28) ASTM D2382–88, Heat of Combustion of Hydrocarbon Fuels by Bomb Calorimeter (High-Precision Method), IBR approved for § 63.11(b).
- (29) ASTM D2697–86 (Reapproved 1998), Standard Test Method for Volume Nonvolatile Matter in Clear or Pigmented Coatings, IBR approved for §§ 63.3521(b), and 63.5160(c).
- (30) ASTM D2697–03 (Reapproved 2014), Standard Test Method for Volume Nonvolatile Matter in Clear or Pigmented Coatings, approved July 1, 2014, IBR approved for §§ 63.3161(f), 63.3360(c), 63.3941(b), 63.4141(b), 63.4741(a) and (b), 63.4941(b), and 63.8055(b).
- (31) ASTM D2879–83, Standard Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope, Approved November 28, 1983, IBR approved for §§ 63.111, 63.1402, 63.2406, 63.7944, and 63.12005.
- (32) ASTM D2879–96, Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope, (Approved 1996), IBR approved for §§ 63.111, and 63.12005.
- (33) ASTM D2908–74, Standard Practice for Measuring Volatile Organic Matter in Water by Aqueous-Injection Gas Chromatography, Approved June 27, 1974, IBR approved for § 63.1329(c).
- (34) ASTM D2908–91, Standard Practice for Measuring Volatile Organic Matter in Water by Aqueous-Injection Gas Chromatography, Approved December 15, 1991, IBR approved for § 63.1329(c).
- (35) ASTM D2908–91(Reapproved 2001), Standard Practice for Measuring Volatile Organic Matter in Water by Aqueous-Injection Gas Chromatography, Approved December 15, 1991, IBR approved for § 63.1329(c).
- (36) ASTM D2908–91(Reapproved 2005), Standard Practice for Measuring Volatile Organic Matter in Water by Aqueous-Injection Gas Chromatography, Approved December 1, 2005, IBR approved for § 63.1329(c).
- (37) ASTM D2908–91(Reapproved 2011), Standard Practice for Measuring Volatile Organic Matter in Water by Aqueous-Injection Gas Chromatography, Approved May 1, 2011, IBR approved for § 63.1329(c).
- (38) ASTM D2986–95A, “Standard Practice for Evaluation of Air Assay Media by the Monodisperse DOP (Diocetyl Phthalate) Smoke Test,” approved September 10, 1995, IBR approved for section 7.1.1 of Method 315 in appendix A to this part.
- (39) ASTM D3173–03 (Reapproved 2008), Standard Test Method for Moisture in the Analysis Sample of Coal and Coke, (Approved February 1, 2008), IBR approved for table 6 to subpart DDDDD and table 5 to subpart JJJJJ.
- (40) ASTM D3257–93, Standard Test Methods for Aromatics in Mineral Spirits by Gas Chromatography, IBR approved for § 63.786(b).
- (41) ASTM D3370–76, Standard Practices for Sampling Water, Approved August 27, 1976, IBR approved for § 63.1329(c).
- (42) ASTM D3370–95a, Standard Practices for Sampling Water from Closed Conduits, Approved September 10, 1995, IBR approved for § 63.1329(c).
- (43) ASTM D3370–07, Standard Practices for Sampling Water from Closed Conduits, Approved December 1, 2007, IBR approved for § 63.1329(c).
- (44) ASTM D3370–08, Standard Practices for Sampling Water from Closed Conduits, Approved October 1, 2008, IBR approved for § 63.1329(c).

- (45) ASTM D3370–10, Standard Practices for Sampling Water from Closed Conduits, Approved December 1, 2010, IBR approved for § 63.1329(c).
- (46) ASTM D3588–98 (Reapproved 2003), Standard Practice for Calculating Heat Value, Compressibility Factor, and Relative Density of Gaseous Fuels, (Approved May 10, 2003), IBR approved for §§ 63.772(h) and 63.1282(g).
- (47) ASTM D3695–88, Standard Test Method for Volatile Alcohols in Water by Direct Aqueous-Injection Gas Chromatography, IBR approved for § 63.365(e).
- (48) ASTM D3792–91, Standard Method for Water Content of Water-Reducible Paints by Direct Injection into a Gas Chromatograph, IBR approved for appendix A to subpart II.
- (49) ASTM D3912–80, Standard Test Method for Chemical Resistance of Coatings Used in Light-Water Nuclear Power Plants, IBR approved for § 63.782.
- (50) ASTM D3960–98, Standard Practice for Determining Volatile Organic Compound (VOC) Content of Paints and Related Coatings, approved November 10, 1998, IBR approved for §§ 63.3360(c) and 63.8055(b).
- (51) ASTM D4006–11, Standard Test Method for Water in Crude Oil by Distillation, including Annex A1 and Appendix X1, (Approved June 1, 2011), IBR approved for § 63.10005(i) and table 6 to subpart DDDDD.
- (52) ASTM D4017–81, Standard Test Method for Water in Paints and Paint Materials by the Karl Fischer Titration Method, IBR approved for appendix A to subpart II.
- (53) ASTM D4017–90, Standard Test Method for Water in Paints and Paint Materials by the Karl Fischer Titration Method, IBR approved for appendix A to subpart II.
- (54) ASTM D4017–96a, Standard Test Method for Water in Paints and Paint Materials by the Karl Fischer Titration Method, IBR approved for appendix A to subpart II.
- (55) ASTM D4057–06 (Reapproved 2011), Standard Practice for Manual Sampling of Petroleum and Petroleum Products, including Annex A1, (Approved June 1, 2011), IBR approved for § 63.10005(i) and table 6 to subpart DDDDD.
- (56) ASTM D4082–89, Standard Test Method for Effects of Gamma Radiation on Coatings for Use in Light-Water Nuclear Power Plants, IBR approved for § 63.782.
- (57) ASTM D4084–07, Standard Test Method for Analysis of Hydrogen Sulfide in Gaseous Fuels (Lead Acetate Reaction Rate Method), (Approved June 1, 2007), IBR approved for table 6 to subpart DDDDD.
- (58) ASTM D4177–95 (Reapproved 2010), Standard Practice for Automatic Sampling of Petroleum and Petroleum Products, including Annexes A1 through A6 and Appendices X1 and X2, (Approved May 1, 2010), IBR approved for § 63.10005(i) and table 6 to subpart DDDDD.
- (59) ASTM D4208–02 (Reapproved 2007), Standard Test Method for Total Chlorine in Coal by the Oxygen Bomb Combustion/Ion Selective Electrode Method, approved May 1, 2007, IBR approved for table 6 to subpart DDDDD.
- (60) ASTM D4239–14e1, “Standard Test Method for Sulfur in the Analysis Sample of Coal and Coke Using High-Temperature Tube Furnace Combustion,” approved March 1, 2014, IBR approved for § 63.849(f).
- (61) ASTM D4256–89, Standard Test Method for Determination of the Decontaminability of Coatings Used in Light-Water Nuclear Power Plants, IBR approved for § 63.782.
- (62) ASTM D4256–89 (Reapproved 94), Standard Test Method for Determination of the Decontaminability of Coatings Used in Light-Water Nuclear Power Plants, IBR approved for § 63.782.

- (63) ASTM D4282–15, Standard Test Method for Determination of Free Cyanide in Water and Wastewater by Microdiffusion, Approved July 15, 2015, IBR approved for § 63.1103(g).
- (64) ASTM D4606–03 (Reapproved 2007), Standard Test Method for Determination of Arsenic and Selenium in Coal by the Hydride Generation/Atomic Absorption Method, (Approved October 1, 2007), IBR approved for table 6 to subpart DDDDD.
- (65) ASTM D4809–95, Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter (Precision Method), IBR approved for § 63.11(b).
- (66) ASTM D4840–99 (Reapproved 2018)e, Standard Guide for Sampling Chain-of-Custody Procedures, approved August 15, 2018, IBR approved for appendix A to part 63.
- (67) ASTM D4891–89 (Reapproved 2006), Standard Test Method for Heating Value of Gases in Natural Gas Range by Stoichiometric Combustion, (Approved June 1, 2006), IBR approved for §§ 63.772(h) and 63.1282(g).
- (68) ASTM D5066–91 (Reapproved 2017), Standard Test Method for Determination of the Transfer Efficiency Under Production Conditions for Spray Application of Automotive Paints-Weight Basis, approved June 1, 2017, IBR approved for § 63.3161(g).
- (69) ASTM D5087–02, Standard Test Method for Determining Amount of Volatile Organic Compound (VOC) Released from Solventborne Automotive Coatings and Available for Removal in a VOC Control Device (Abatement), IBR approved for § 63.3165(e) and appendix A to subpart IIII.
- (70) ASTM D5192–09, Standard Practice for Collection of Coal Samples from Core, (Approved June 1, 2009), IBR approved for table 6 to subpart DDDDD.
- (71) ASTM D5198–09, Standard Practice for Nitric Acid Digestion of Solid Waste, (Approved February 1, 2009), IBR approved for table 6 to subpart DDDDD and table 5 to subpart JJJJJ.
- (72) ASTM D5228–92, Standard Test Method for Determination of Butane Working Capacity of Activated Carbon, (Reapproved 2005), IBR approved for § 63.11092(b).
- (73) ASTM D5291–02, Standard Test Methods for Instrumental Determination of Carbon, Hydrogen, and Nitrogen in Petroleum Products and Lubricants, IBR approved for appendix A to subpart MMMM.
- (74) ASTM D5790–95 (Reapproved 2012), Standard Test Method for Measurement of Purgeable Organic Compounds in Water by Capillary Column Gas Chromatography/Mass Spectrometry, Approved June 15, 2012, IBR approved for § 63.2485(h) and Table 4 to subpart UUUU.
- (75) ASTM D5864–11, Standard Test Method for Determining Aerobic Aquatic Biodegradation of Lubricants or Their Components, (Approved March 1, 2011), IBR approved for table 6 to subpart DDDDD.
- (76) ASTM D5865–10a, Standard Test Method for Gross Calorific Value of Coal and Coke, (Approved May 1, 2010), IBR approved for table 6 to subpart DDDDD and table 5 to subpart JJJJJ.
- (77) ASTM D5954–98 (Reapproved 2006), Test Method for Mercury Sampling and Measurement in Natural Gas by Atomic Absorption Spectroscopy, (Approved December 1, 2006), IBR approved for table 6 to subpart DDDDD.
- (78) ASTM D5965–02 (Reapproved 2013), Standard Test Methods for Specific Gravity of Coating Powders, approved June 1, 2013, IBR approved for §§ 63.3151(b) and 63.3951(c).
- (79) ASTM D6053–00, Standard Test Method for Determination of Volatile Organic Compound (VOC) Content of Electrical Insulating Varnishes, IBR approved for appendix A to subpart MMMM.
- (80) ASTM D6093–97 (Reapproved 2003), Standard Test Method for Percent Volume Nonvolatile Matter in Clear or Pigmented Coatings Using a Helium Gas Pycnometer, IBR approved for §§ 63.3521 and 63.5160(c).

(81) ASTM D6093–97 (Reapproved 2016), Standard Test Method for Percent Volume Nonvolatile Matter in Clear or Pigmented Coatings Using a Helium Gas Pycnometer, approved December 1, 2016, IBR approved for §§ 63.3161(f), 63.3360(c), 63.3941(b), 63.4141(b), 63.4741(a) and (b), and 63.4941(b).

(82) ASTM D6196–03 (Reapproved 2009), Standard Practice for Selection of Sorbents, Sampling, and Thermal Desorption Analysis Procedures for Volatile Organic Compounds in Air, Approved March 1, 2009, IBR approved for appendix A to this part: Method 325A and Method 325B.

(83) ASTM D6266–00a (Reapproved 2017), Standard Test Method for Determining the Amount of Volatile Organic Compound (VOC) Released from Waterborne Automotive Coatings and Available for Removal in a VOC Control Device (Abatement), approved July 1, 2017, IBR approved for § 63.3165(e).

(84) ASTM D6323–98 (Reapproved 2003), Standard Guide for Laboratory Subsampling of Media Related to Waste Management Activities, (Approved August 10, 2003), IBR approved for table 6 to subpart DDDDD and table 5 to subpart JJJJJ.

(85) ASTM D6348–03, Standard Test Method for Determination of Gaseous Compounds by Extractive Direct Interface Fourier Transform Infrared (FTIR) Spectroscopy, including Annexes A1 through A8, Approved October 1, 2003, IBR approved for §§ 63.457(b), 63.997(e), and 63.1349, table 4 to subpart DDDD, table 5 to subpart EEEE, table 4 to subpart UUUU, table 4 subpart ZZZZ, and table 8 to subpart HHHHHH.

(86) ASTM D6348–03 (Reapproved 2010), Standard Test Method for Determination of Gaseous Compounds by Extractive Direct Interface Fourier Transform Infrared (FTIR) Spectroscopy, including Annexes A1 through A8, Approved October 1, 2010, IBR approved for §§ 63.1571(a), 63.4751(i), 63.4752(e), 63.4766(b), 63.7142(a) and (b), tables 4 and 5 to subpart JJJJJ, tables 4 and 6 to subpart KKKKK, tables 1, 2, and 5 to subpart UUUUU and appendix B to subpart UUUUU.

(87) ASTM D6348–12e1, Standard Test Method for Determination of Gaseous Compounds by Extractive Direct Interface Fourier Transform Infrared (FTIR) Spectroscopy, Approved February 1, 2012, IBR approved for §§ 63.997(e), 63.1571(a), and 63.2354(b), table 5 to subpart EEEE, table 4 to subpart UUUU, §§ 63.7142(a) and (b) and 63.8000(d), and table 4 to subpart SSSSS.

(88) ASTM D6350–98 (Reapproved 2003), Standard Test Method for Mercury Sampling and Analysis in Natural Gas by Atomic Fluorescence Spectroscopy, (Approved May 10, 2003), IBR approved for table 6 to subpart DDDDD.

(89) ASTM D6357–11, Test Methods for Determination of Trace Elements in Coal, Coke, and Combustion Residues from Coal Utilization Processes by Inductively Coupled Plasma Atomic Emission Spectrometry, (Approved April 1, 2011), IBR approved for table 6 to subpart DDDDD.

(90) ASTM D6376–10, “Standard Test Method for Determination of Trace Metals in Petroleum Coke by Wavelength Dispersive X-Ray Fluorescence Spectroscopy,” Approved July 1, 2010, IBR approved for § 63.849(f).

(91) [Reserved]

(92) ASTM D6420–99, Standard Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography-Mass Spectrometry, IBR approved for §§ 63.5799 and 63.5850.

(93) ASTM D6420–99 (Reapproved 2004), Standard Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography-Mass Spectrometry (Approved October 1, 2004), IBR approved for §§ 63.457(b), 63.772(a), 63.772(e), 63.1282(a) and (d), and table 8 to subpart HHHHHH.

(94) ASTM D6420–99 (Reapproved 2010), Standard Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography-Mass Spectrometry, Approved October 1, 2010, IBR approved for §§ 63.670(j), Table 4 to subpart UUUU, 63.7142(b), and appendix A to this part: Method 325B.

- (95) ASTM D6420–18, Standard Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography-Mass Spectrometry, approved November 1, 2018, IBR approved for §§ 63.987(b), 63.997(e), and 63.2354(b), table 5 to subpart EEEE, and §§ 63.2450(j) and 63.8000(d).
- (96) ASTM D6522–00, Standard Test Method for Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Concentrations in Emissions from Natural Gas Fired Reciprocating Engines, Combustion Turbines, Boilers, and Process Heaters Using Portable Analyzers, IBR approved for § 63.9307(c).
- (97) ASTM D6522–00 (Reapproved 2005), Standard Test Method for Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Concentrations in Emissions from Natural Gas Fired Reciprocating Engines, Combustion Turbines, Boilers, and Process Heaters Using Portable Analyzers, (Approved October 1, 2005), IBR approved for table 4 to subpart ZZZZ, table 5 to subpart DDDDDD, table 4 to subpart JJJJJ, and §§ 63.772(e) and (h)) and 63.1282(d) and (g).
- (98) ASTM D6522–11 Standard Test Method for Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Concentrations in Emissions from Natural Gas-Fired Reciprocating Engines, Combustion Turbines, Boilers, and Process Heaters Using Portable Analyzers, Approved December 1, 2011, IBR approved for § 63.1961(a) and table 3 to subpart YYYY.
- (99) ASTM D6721–01 (Reapproved 2006), Standard Test Method for Determination of Chlorine in Coal by Oxidative Hydrolysis Microcoulometry, (Approved April 1, 2006), IBR approved for table 6 to subpart DDDDD.
- (100) ASTM D6722–01 (Reapproved 2006), Standard Test Method for Total Mercury in Coal and Coal Combustion Residues by the Direct Combustion Analysis, (Approved April 1, 2006), IBR approved for Table 6 to subpart DDDDD and Table 5 to subpart JJJJJ.
- (101) ASTM D6735–01 (Reapproved 2009), Standard Test Method for Measurement of Gaseous Chlorides and Fluorides from Mineral Calcining Exhaust Sources—Impinger Method, IBR approved for § 63.7142(b), tables 4 and 5 to subpart JJJJJ, and tables 4 and 6 to subpart KKKKK.
- (102) ASTM D6751–11b, Standard Specification for Biodiesel Fuel Blend Stock (B100) for Middle Distillate Fuels, (Approved July 15, 2011), IBR approved for §§ 63.7575 and 63.11237.
- (103) ASTM D6784–02 (Reapproved 2008), Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method), Approved April 1, 2008; IBR approved for §§ 63.2465(d); 63.11646(a); 63.11647(a) and (d); tables 1, 2, 5, 11, 12t, and 13 to subpart DDDDD; tables 4 and 5 to subpart JJJJJ; tables 4 and 6 to subpart KKKKK; table 4 to subpart JJJJJ.
- (104) ASTM D6784–16, Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method), Approved March 1, 2016; IBR approved for table 5 to subpart UUUUU; appendix A to subpart UUUUU.
- (105) ASTM D6883–04, Standard Practice for Manual Sampling of Stationary Coal from Railroad Cars, Barges, Trucks, or Stockpiles, (Approved June 1, 2004), IBR approved for table 6 to subpart DDDDD.
- (106) ASTM D6886–18, Standard Test Method for Determination of the Weight Percent Individual Volatile Organic Compounds in Waterborne Air-Dry Coatings by Gas Chromatography, approved October 1, 2018, IBR approved for § 63.2354(c).
- (107) ASTM D7237–18, Standard Test Method for Free Cyanide and Aquatic Free Cyanide with Flow Injection Analysis (FIA) Utilizing Gas Diffusion Separation and Amperometric Detection, Approved December 1, 2018, IBR approved for § 63.1103(g).
- (108) ASTM D7430–11ae1, Standard Practice for Mechanical Sampling of Coal, (Approved October 1, 2011), IBR approved for table 6 to subpart DDDDD.

(109) ASTM D7520–16, Standard Test Method for Determining the Opacity of a Plume in the Outdoor Ambient Atmosphere, approved April 1, 2016; IBR approved for §§ 63.1625(b); table 3 to subpart LLLLL; 63.7823(c) through (e), 63.7833(g); 63.11423(c).

(110) [Reserved]

(111) ASTM E145–94 (Reapproved 2001), Standard Specification for Gravity-Convection and Forced-Ventilation Ovens, IBR approved for appendix A to subpart PPPP.

(112) ASTM E180–93, Standard Practice for Determining the Precision of ASTM Methods for Analysis and Testing of Industrial Chemicals, IBR approved for § 63.786(b).

(113) ASTM E260–91, General Practice for Packed Column Gas Chromatography, IBR approved for §§ 63.750(b) and 63.786(b).

(114) ASTM E260–96, General Practice for Packed Column Gas Chromatography, IBR approved for §§ 63.750(b) and 63.786(b).

(115) ASTM E515–95 (Reapproved 2000), Standard Test Method for Leaks Using Bubble Emission Techniques, IBR approved for § 63.425(i).

(116) ASTM E711–87 (Reapproved 2004), Standard Test Method for Gross Calorific Value of Refuse-Derived Fuel by the Bomb Calorimeter, (Approved August 28, 1987), IBR approved for table 6 to subpart DDDDD and table 5 to subpart JJJJJ.

(117) ASTM E776–87 (Reapproved 2009), Standard Test Method for Forms of Chlorine in Refuse-Derived Fuel, (Approved July 1, 2009), IBR approved for table 6 to subpart DDDDD.

(118) ASTM E871–82 (Reapproved 2006), Standard Test Method for Moisture Analysis of Particulate Wood Fuels, (Approved November 1, 2006), IBR approved for table 6 to subpart DDDDD and table 5 to subpart JJJJJ.

(119) ASTM UOP539–12, Refinery Gas Analysis by GC, Copyright 2012 (to UOP), IBR approved for § 63.670(j).

(j) Bay Area Air Quality Management District (BAAQMD), 939 Ellis Street, San Francisco, California 94109, <http://www.arb.ca.gov/DRDB/BA/CURHTML/ST/st30.pdf>.

(1) “BAAQMD Source Test Procedure ST–30—Static Pressure Integrity Test, Underground Storage Tanks,” adopted November 30, 1983, and amended December 21, 1994, IBR approved for § 63.11120(a).

(2) [Reserved]

(k) British Standards Institute, 389 Chiswick High Road, London W4 4AL, United Kingdom.

(1) BS EN 1593:1999, Non-destructive Testing: Leak Testing—Bubble Emission Techniques, IBR approved for § 63.425(i).

(2) BS EN 14662–4:2005, Ambient air quality standard method for the measurement of benzene concentrations—Part 4: Diffusive sampling followed by thermal desorption and gas chromatography, Published June 27, 2005, IBR approved for appendix A to this part: Method 325A and Method 325B.

(l) California Air Resources Board (CARB), 1001 I Street, P.O. Box 2815, Sacramento, CA 95812–2815, Telephone (916) 327–0900, <http://www.arb.ca.gov/>.

(1) Method 310, “Determination of Volatile Organic Compounds (VOC) in Consumer Products and Reactive Organic Compounds (ROC) in Aerosol Coating Products,” amended May 25, 2018, IBR approved for § 63.8055(b).

(2) Method 428, "Determination Of Polychlorinated Dibenzo-P-Dioxin (PCDD), Polychlorinated Dibenzofuran (PCDF), and Polychlorinated Biphenyle Emissions from Stationary Sources," amended September 12, 1990, IBR approved for § 63.849(a)(13) and (14).

(3) Method 429, Determination of Polycyclic Aromatic Hydrocarbon (PAH) Emissions from Stationary Sources, Adopted September 12, 1989, Amended July 28, 1997, IBR approved for § 63.1625(b).

(4) California Air Resources Board Vapor Recovery Test Procedure TP-201.1—"Volumetric Efficiency for Phase I Vapor Recovery Systems," adopted April 12, 1996, and amended February 1, 2001 and October 8, 2003, IBR approved for § 63.11120(b).

(5) California Air Resources Board Vapor Recovery Test Procedure TP-201.1E—"Leak Rate and Cracking Pressure of Pressure/Vacuum Vent Valves," adopted October 8, 2003, IBR approved for § 63.11120(a).

(6) California Air Resources Board Vapor Recovery Test Procedure TP-201.3—"Determination of 2-Inch WC Static Pressure Performance of Vapor Recovery Systems of Dispensing Facilities," adopted April 12, 1996 and amended March 17, 1999, IBR approved for § 63.11120(a).

(m) Composite Panel Association, 19465 Deerfield Avenue, Suite 306, Leesburg, VA 20176, Telephone (703)724-1128, and www.compositepanel.org.

(1) ANSI A135.4-2012, Basic Hardboard, approved June 8, 2012, IBR approved for § 63.4781.

(2) [Reserved]

(n) Environmental Protection Agency. Air and Radiation Docket and Information Center, 1200 Pennsylvania Avenue NW., Washington, DC 20460, telephone number (202) 566-1745.

(1) *California Regulatory Requirements Applicable to the Air Toxics Program*, November 16, 2010, IBR approved for § 63.99(a).

(2) *New Jersey's Toxic Catastrophe Prevention Act Program*, (July 20, 1998), IBR approved for § 63.99(a).

(3) Delaware Department of Natural Resources and Environmental Control, Division of Air and Waste Management, Accidental Release Prevention Regulation, sections 1 through 5 and sections 7 through 14, effective January 11, 1999, IBR approved for § 63.99(a).

(4) State of Delaware Regulations Governing the Control of Air Pollution (October 2000), IBR approved for § 63.99(a).

(5) Massachusetts Department of Environmental Protection regulations at 310 CMR 7.26(10)-(16), Air Pollution Control, effective as of September 5, 2008, corrected March 6, 2009, and 310 CMR 70.00, Environmental Results Program Certification, effective as of December 28, 2007. IBR approved for § 63.99(a).

(6)

(i) New Hampshire Regulations at Env-Sw 2100, Management and Control of Asbestos Disposal Sites Not Operated after July 9, 1981, effective February 16, 2010 (including a letter from Thomas S. Burack, Commissioner, Department of Environmental Services, State of New Hampshire, to Carol J. Holahan, Director, Office of Legislative Services, dated February 12, 2010, certifying that the enclosed rule, Env-Sw 2100, is the official version of this rule), IBR approved for § 63.99(a).

(ii) New Hampshire Code of Administrative Rules: Chapter Env-A 1800, Asbestos Management and Control, effective as of May 5, 2017 (certified with June 23, 2017 letter from Clark B. Freise, Assistant Commissioner, Department of Environmental Services, State of New Hampshire), as follows: Revision Notes #1 and #2; Part Env-A 1801-1807, excluding Env-A 1801.02(e), Env-A 1801.07, Env-A 1802.02, Env-A 1802.04, Env-A 1802.07-1802.09,

Env-A 1802.13, Env-A 1802.15–1802.17, Env-A 1802.25, Env-A 1802.31, Env-A 1802.37, Env-A 1802.40, Env-A 1802.44, and Env-A 1803.05–1803.09; and Appendices B, C, and D; IBR approved for § 63.99(a).

(7) Maine Department of Environmental Protection regulations at Chapter 125, Perchloroethylene Dry Cleaner Regulation, effective as of June 2, 1991, last amended on June 24, 2009. IBR approved for § 63.99(a).

(8) California South Coast Air Quality Management District's "Spray Equipment Transfer Efficiency Test Procedure for Equipment User, May 24, 1989," IBR approved for §§ 63.11173(e) and 63.11516(d).

(9) California South Coast Air Quality Management District's "Guidelines for Demonstrating Equivalency with District Approved Transfer Efficient Spray Guns, September 26, 2002," Revision 0, IBR approved for §§ 63.11173(e) and 63.11516(d).

(10) Rhode Island Department of Environmental Management regulations at Air Pollution Control Regulation No. 36, Control of Emissions from Organic Solvent Cleaning, effective April 8, 1996, last amended October 9, 2008, IBR approved for § 63.99(a).

(11) Rhode Island Air Pollution Control, General Definitions Regulation, effective July 19, 2007, last amended October 9, 2008. IBR approved for § 63.99(a).

(12) Alaska Statute 42.45.045. Renewable energy grant fund and recommendation program, available at <http://www.legis.state.ak.us/basis/folio.asp>, IBR approved for § 63.6675.

(13) Vermont Air Pollution Control Regulations, Chapter 5, Air Pollution Control, section 5–253.11, Perchloroethylene Dry Cleaning, effective as of December 15, 2016. Incorporation by reference approved for § 63.99(a).

(o) U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue NW., Washington, DC 20460, (202) 272–0167, <http://www.epa.gov>.

(1) EPA–453/R–08–002, Protocol for Determining the Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Primer-Surfacer and Topcoat, published September 2008, IBR approved for §§ 63.3130(c), 63.3161(d) and (g), 63.3165(e), and appendix A to subpart IIII.

(2) EPA–453/R–01–005, National Emission Standards for Hazardous Air Pollutants (NESHAP) for Integrated Iron and Steel Plants—Background Information for Proposed Standards, Final Report, January 2001, IBR approved for § 63.7491(g).

(3) [Reserved]

(4) EPA–454/R–98–015, Office of Air Quality Planning and Standards (OAQPS), Fabric Filter Bag Leak Detection Guidance, September 1997, <https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=2000D5T6.PDF>; IBR approved for §§ 63.548(e); 63.864(e); 63.7525(j); 63.8450(e); 63.8600(e); 63.9632(a); 63.9804(f); 63.11224(f); 63.11423(e).

(5) EPA–454/R–99–005, Office of Air Quality Planning and Standards (OAQPS), Meteorological Monitoring Guidance for Regulatory Modeling Applications, February 2000, IBR approved for appendix A to this part: Method 325A.

(6) EPA/600/R–12/531, EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards, May 2012, IBR approved for § 63.2163(b).

(7) EPA–625/3–89–016, Interim Procedures for Estimating Risks Associated with Exposures to Mixtures of Chlorinated Dibenzo-p-Dioxins and –Dibenzofurans (CDDs and CDFs) and 1989 Update, March 1989. IBR approved for § 63.1513(d).

- (8) SW-846-0011, Sampling for Selected Aldehyde and Ketone Emissions from Stationary Sources, Revision 0, December 1996, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for table 4 to subpart DDDD.
- (9) SW-846-3020A, Acid Digestion of Aqueous Samples And Extracts For Total Metals For Analysis By GFAA Spectroscopy, Revision 1, July 1992, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for table 6 to subpart DDDDD and table 5 to subpart JJJJJ.
- (10) SW-846-3050B, Acid Digestion of Sediments, Sludges, and Soils, Revision 2, December 1996, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for table 6 to subpart DDDDD and table 5 to subpart JJJJJ.
- (11) SW-846-5030B, Purge-And-Trap For Aqueous Samples, Revision 2, December 1996, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for § 63.2492(b) and (c).
- (12) SW-846-5031, Volatile, Nonpurgeable, Water-Soluble Compounds by Azeotropic Distillation, Revision 0, December 1996, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for § 63.2492(b) and (c).
- (13) SW-846-7470A, Mercury In Liquid Waste (Manual Cold-Vapor Technique), Revision 1, September 1994, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for table 6 to subpart DDDDD and table 5 to subpart JJJJJ.
- (14) SW-846-7471B, Mercury In Solid Or Semisolid Waste (Manual Cold-Vapor Technique), Revision 2, February 2007, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for table 6 to subpart DDDDD and table 5 to subpart JJJJJ.
- (15) SW-846-8015C, Nonhalogenated Organics by Gas Chromatography, Revision 3, February 2007, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for §§ 63.11960, 63.11980, and table 10 to subpart HHHHHH.
- (16) SW-846-8260B, Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS), Revision 2, December 1996, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for §§ 63.1107(a), 63.11960, 63.11980, and table 10 to subpart HHHHHH.
- (17) SW-846-8260D, Volatile Organic Compounds By Gas Chromatography/Mass Spectrometry, Revision 4, June 2018, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for § 63.2492(b) and (c).
- (18) SW-846-8270D, Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS), Revision 4, February 2007, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for §§ 63.1107(a), 63.11960, 63.11980, and table 10 to subpart HHHHHH.
- (19) SW-846-8315A, Determination of Carbonyl Compounds by High Performance Liquid Chromatography (HPLC), Revision 1, December 1996, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for §§ 63.11960 and 63.11980, and table 10 to subpart HHHHHH.

(20) SW-846-5050, Bomb Preparation Method for Solid Waste, Revision 0, September 1994, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition IBR approved for table 6 to subpart DDDDD.

(21) SW-846-6010C, Inductively Coupled Plasma-Atomic Emission Spectrometry, Revision 3, February 2007, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for table 6 to subpart DDDDD.

(22) SW-846-6020A, Inductively Coupled Plasma-Mass Spectrometry, Revision 1, February 2007, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for table 6 to subpart DDDDD.

(23) SW-846-7060A, Arsenic (Atomic Absorption, Furnace Technique), Revision 1, September 1994, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for table 6 to subpart DDDDD.

(24) SW-846-7740, Selenium (Atomic Absorption, Furnace Technique), Revision 0, September 1986, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for table 6 to subpart DDDDD.

(25) SW-846-9056, Determination of Inorganic Anions by Ion Chromatography, Revision 1, February 2007, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for table 6 to subpart DDDDD.

(26) SW-846-9076, Test Method for Total Chlorine in New and Used Petroleum Products by Oxidative Combustion and Microcoulometry, Revision 0, September 1994, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for table 6 to subpart DDDDD.

(27) SW-846-9250, Chloride (Colorimetric, Automated Ferricyanide AAI), Revision 0, September 1986, in EPA Publication No. SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, IBR approved for table 6 to subpart DDDDD.

(28) Method 200.8, Determination of Trace Elements in Waters and Wastes by Inductively Coupled Plasma—Mass Spectrometry, Revision 5.4, 1994, IBR approved for table 6 to subpart DDDDD.

(29) Method 1631 Revision E, Mercury in Water by Oxidation, Purge and Trap, and Cold Vapor Atomic Absorption Fluorescence Spectrometry, Revision E, EPA-821-R-02-019, August 2002, IBR approved for table 6 to subpart DDDDD.

(p) International Standards Organization (ISO), 1, ch. de la Voie-Creuse, Case postale 56, CH-1211 Geneva 20, Switzerland, + 41 22 749 01 11, <http://www.iso.org/iso/home.htm>.

(1) ISO 6978-1:2003(E), Natural Gas—Determination of Mercury—Part 1: Sampling of Mercury by Chemisorption on Iodine, First edition, October 15, 2003, IBR approved for table 6 to subpart DDDDD.

(2) ISO 6978-2:2003(E), Natural gas—Determination of Mercury—Part 2: Sampling of Mercury by Amalgamation on Gold/Platinum Alloy, First edition, October 15, 2003, IBR approved for table 6 to subpart DDDDD.

(3) ISO 16017-2:2003(E): Indoor, ambient and workplace air—sampling and analysis of volatile organic compounds by sorbent tube/thermal desorption/capillary gas chromatography—Part 2: Diffusive sampling, May 15, 2003, IBR approved for appendix A to this part: Method 325A and Method 325B.

(q) National Council of the Paper Industry for Air and Stream Improvement, Inc. (NCASI), P.O. Box 133318, Research Triangle Park, NC 27709-3318 or at <http://www.ncasi.org>.

(1) NCASI Method DI/MEOH-94.03, Methanol in Process Liquids and Wastewaters by GC/FID, Issued May 2000, IBR approved for §§ 63.457 and 63.459.

(2) NCASI Method CI/WP-98.01, Chilled Impinger Method For Use At Wood Products Mills to Measure Formaldehyde, Methanol, and Phenol, 1998, Methods Manual, IBR approved for table 4 to subpart DDDD.

(3) NCASI Method DI/HAPS-99.01, Selected HAPs In Condensates by GC/FID, Issued February 2000, IBR approved for § 63.459(b).

(4) NCASI Method IM/CAN/WP-99.02, Impinger/Canister Source Sampling Method for Selected HAPs and Other Compounds at Wood Products Facilities, January 2004, Methods Manual, IBR approved for table 4 to subpart DDDD.

(5) NCASI Method ISS/FP A105.01, Impinger Source Sampling Method for Selected Aldehydes, Ketones, and Polar Compounds, December 2005, Methods Manual, IBR approved for table 4 to subpart DDDD and §§ 63.4751(i) and 63.4752(e).

(r) National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, VA 22161, (703) 605-6000 or (800) 553-6847; or for purchase from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402, (202) 512-1800.

(1) Handbook 44, Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices 1998, IBR approved for § 63.1303(e).

(2) "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, Third Edition. (A suffix of "A" in the method number indicates revision one (the method has been revised once). A suffix of "B" in the method number indicates revision two (the method has been revised twice).

(i) Method 0023A, "Sampling Method for Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofuran Emissions from Stationary Sources," Revision 2, dated August 2018, IBR approved for § 63.1208(b).

(ii) Method 9071B, "n-Hexane Extractable Material (HEM) for Sludge, Sediment, and Solid Samples," dated April 1998, IBR approved for § 63.7824(e).

(iii) Method 9095A, "Paint Filter Liquids Test," dated December 1996, IBR approved for §§ 63.7700(b) and 63.7765.

(iv) Method 9095B, "Paint Filter Liquids Test," (revision 2), dated November 2004, IBR approved for the definition of "Free organic liquids" in §§ 63.10692, 63.10885(a), and the definition of "Free liquids" in § 63.10906.

(v) SW-846 74741B, Revision 2, "Mercury in Solid or Semisolid Waste (Manual Cold-Vapor Technique)," February 2007, IBR approved for § 63.11647(f).

(3) National Institute of Occupational Safety and Health (NIOSH) test method compendium, "NIOSH Manual of Analytical Methods," NIOSH publication no. 94-113, Fourth Edition, August 15, 1994.

(i) NIOSH Method 2010, "Amines, Aliphatic," Issue 2, August 15, 1994, IBR approved for § 63.7732(g).

(ii) [Reserved]

(s) North American Electric Reliability Corporation, 1325 G Street, NW., Suite 600, Washington, DC 20005-3801, <http://www.nerc.com>, http://www.nerc.com/files/EOP0002-3_1.pdf.

(1) North American Electric Reliability Corporation Reliability Standard EOP-002-3, Capacity and Energy Emergencies, adopted August 5, 2010, IBR approved for § 63.6640(f).

(2) [Reserved]

(t) Technical Association of the Pulp and Paper Industry (TAPPI), 15 Technology Parkway South, Norcross, GA 30092, (800) 332-8686, <http://www.tappi.org>.

(1) TAPPI T 266, Determination of Sodium, Calcium, Copper, Iron, and Manganese in Pulp and Paper by Atomic Absorption Spectroscopy (Reaffirmation of T 266 om-02), Draft No. 2, July 2006, IBR approved for table 6 to subpart DDDDD.

(2) [Reserved]

(u) Texas Commission on Environmental Quality (TCEQ) Library, Post Office Box 13087, Austin, Texas 78711-3087, telephone number (512) 239-0028, http://www.tceq.state.tx.us/assets/public/implementation/air/sip/sipdocs/2002-12-HGB/02046sipapp_ado.pdf.

(1) "Air Stripping Method (Modified El Paso Method) for Determination of Volatile Organic Compound Emissions from Water Sources," Revision Number One, dated January 2003, Sampling Procedures Manual, Appendix P: Cooling Tower Monitoring, January 31, 2003, IBR approved for §§ 63.654(c) and (g), 63.655(i), 63.1086(e), 63.1089, 63.2490(d), 63.2525(r), and 63.11920.

(2) [Reserved]

Editorial Note

Editorial Note: For Federal Register citations affecting § 63.14, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and at www.govinfo.gov.

§ 63.15 Availability of information and confidentiality.

(a) *Availability of information.*

(1) With the exception of information protected through part 2 of this chapter, all reports, records, and other information collected by the Administrator under this part are available to the public. In addition, a copy of each permit application, compliance plan (including the schedule of compliance), notification of compliance status, excess emissions and continuous monitoring systems performance report, and title V permit is available to the public, consistent with protections recognized in section 503(e) of the Act.

(2) The availability to the public of information provided to or otherwise obtained by the Administrator under this part shall be governed by part 2 of this chapter.

(b) *Confidentiality.*

(1) If an owner or operator is required to submit information entitled to protection from disclosure under section 114(c) of the Act, the owner or operator may submit such information separately. The requirements of section 114(c) shall apply to such information.

(2) The contents of a title V permit shall not be entitled to protection under section 114(c) of the Act; however, information submitted as part of an application for a title V permit may be entitled to protection from disclosure.

§ 63.16 Performance Track Provisions.

(a) Notwithstanding any other requirements in this part, an affected source at any major source or any area source at a Performance Track member facility, which is subject to regular periodic reporting under

any subpart of this part, may submit such periodic reports at an interval that is twice the length of the regular period specified in the applicable subparts; provided, that for sources subject to permits under 40 CFR part 70 or 71 no interval so calculated for any report of the results of any required monitoring may be less frequent than once in every six months.

(b) Notwithstanding any other requirements in this part, the modifications of reporting requirements in paragraph (c) of this section apply to any major source at a Performance Track member facility which is subject to requirements under any of the subparts of this part and which has:

- (1) Reduced its total HAP emissions to less than 25 tons per year;
- (2) Reduced its emissions of each individual HAP to less than 10 tons per year; and
- (3) Reduced emissions of all HAPs covered by each MACT standard to at least the level required for full compliance with the applicable emission standard.

(c) For affected sources at any area source at a Performance Track member facility and which meet the requirements of paragraph (b)(3) of this section, or for affected sources at any major source that meet the requirements of paragraph (b) of this section:

- (1) If the emission standard to which the affected source is subject is based on add-on control technology, and the affected source complies by using add-on control technology, then all required reporting elements in the periodic report may be met through an annual certification that the affected source is meeting the emission standard by continuing to use that control technology. The affected source must continue to meet all relevant monitoring and recordkeeping requirements. The compliance certification must meet the requirements delineated in Clean Air Act section 114(a)(3).
- (2) If the emission standard to which the affected source is subject is based on add-on control technology, and the affected source complies by using pollution prevention, then all required reporting elements in the periodic report may be met through an annual certification that the affected source is continuing to use pollution prevention to reduce HAP emissions to levels at or below those required by the applicable emission standard. The affected source must maintain records of all calculations that demonstrate the level of HAP emissions required by the emission standard as well as the level of HAP emissions achieved by the affected source. The affected source must continue to meet all relevant monitoring and recordkeeping requirements. The compliance certification must meet the requirements delineated in Clean Air Act section 114(a)(3).
- (3) If the emission standard to which the affected source is subject is based on pollution prevention, and the affected source complies by using pollution prevention and reduces emissions by an additional 50 percent or greater than required by the applicable emission standard, then all required reporting elements in the periodic report may be met through an annual certification that the affected source is continuing to use pollution prevention to reduce HAP emissions by an additional 50 percent or greater than required by the applicable emission standard. The affected source must maintain records of all calculations that demonstrate the level of HAP emissions required by the emission standard as well as the level of HAP emissions achieved by the affected source. The affected source must continue to meet all relevant monitoring and recordkeeping requirements. The compliance certification must meet the requirements delineated in Clean Air Act section 114(a)(3).

(4) Notwithstanding the provisions of paragraphs (c)(1) through (3), of this section, for sources subject to permits under 40 CFR part 70 or 71, the results of any required monitoring and recordkeeping must be reported not less frequently than once in every six months.

Table 1 to Subpart A of Part 63 - Detection Sensitivity Levels (grams per hour)

Monitoring frequency per subpart ^a	Detection sensitivity level
Bi-Monthly	60
Semi-Quarterly	85
Monthly	100

^a When this alternative work practice is used to identify leaking equipment, the owner or operator must choose one of the monitoring frequencies listed in this table, in lieu of the monitoring frequency specified in the applicable subpart. Bi-monthly means every other month. Semi-quarterly means twice per quarter. Monthly means once per month.

Appendix I. 40 CFR Part 63, Subpart ZZZZ—National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

§63.6580 What is the purpose of subpart ZZZZ?

Subpart ZZZZ establishes national emission limitations and operating limitations for hazardous air pollutants (HAP) emitted from stationary reciprocating internal combustion engines (RICE) located at major and area sources of HAP emissions. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations and operating limitations.

§63.6585 Am I subject to this subpart?

You are subject to this subpart if you own or operate a stationary RICE at a major or area source of HAP emissions, except if the stationary RICE is being tested at a stationary RICE test cell/stand.

- (a) A stationary RICE is any internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work and which is not mobile. Stationary RICE differ from mobile RICE in that a stationary RICE is not a non-road engine as defined at 40 CFR 1068.30, and is not used to propel a motor vehicle or a vehicle used solely for competition.
- (b) A major source of HAP emissions is a plant site that emits or has the potential to emit any single HAP at a rate of 10 tons (9.07 megagrams) or more per year or any combination of HAP at a rate of 25 tons (22.68 megagrams) or more per year, except that for oil and gas production facilities, a major source of HAP emissions is determined for each surface site.
- (c) An area source of HAP emissions is a source that is not a major source.
- (d) If you are an owner or operator of an area source subject to this subpart, your status as an entity subject to a standard or other requirements under this subpart does not subject you to the obligation to obtain a permit under 40 CFR part 70 or 71, provided you are not required to obtain a permit under 40 CFR 70.3(a) or 40 CFR 71.3(a) for a reason other than your status as an area source under this subpart. Notwithstanding the previous sentence, you must continue to comply with the provisions of this subpart as applicable.
- (e) If you are an owner or operator of a stationary RICE used for national security purposes, you may be eligible to request an exemption from the requirements of this subpart as described in 40 CFR part 1068, subpart C.
- (f) The emergency stationary RICE listed in paragraphs (f)(1) through (3) of this section are not subject to this subpart. The stationary RICE must meet the definition of an emergency stationary RICE in §63.6675, which includes operating according to the provisions specified in §63.6640(f).
 - (1) Existing residential emergency stationary RICE located at an area source of HAP emissions that do not operate for the purpose specified in § 63.6640(f)(4)(ii).
 - (2) Existing commercial emergency stationary RICE located at an area source of HAP emissions that do not operate for the purpose specified in § 63.6640(f)(4)(ii).
 - (3) Existing institutional emergency stationary RICE located at an area source of HAP emissions that do not operate for the purpose specified in § 63.6640(f)(4)(ii).

§63.6590 What parts of my plant does this subpart cover?

This subpart applies to each affected source.

(a) *Affected source.* An affected source is any existing, new, or reconstructed stationary RICE located at a major or area source of HAP emissions, excluding stationary RICE being tested at a stationary RICE test cell/stand.

(1) Existing stationary RICE.

(i) For stationary RICE with a site rating of more than 500 brake horsepower (HP) located at a major source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before December 19, 2002.

(ii) For stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.

(iii) For stationary RICE located at an area source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.

(iv) A change in ownership of an existing stationary RICE does not make that stationary RICE a new or reconstructed stationary RICE.

(2) New stationary RICE.

(i) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions is new if you commenced construction of the stationary RICE on or after December 19, 2002.

(ii) A stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions is new if you commenced construction of the stationary RICE on or after June 12, 2006.

(iii) A stationary RICE located at an area source of HAP emissions is new if you commenced construction of the stationary RICE on or after June 12, 2006.

(3) Reconstructed stationary RICE.

(i) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions is reconstructed if you meet the definition of reconstruction in §63.2 and reconstruction is commenced on or after December 19, 2002.

(ii) A stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions is reconstructed if you meet the definition of reconstruction in §63.2 and reconstruction is commenced on or after June 12, 2006.

(iii) A stationary RICE located at an area source of HAP emissions is reconstructed if you meet the definition of reconstruction in §63.2 and reconstruction is commenced on or after June 12, 2006.

(b) Stationary RICE subject to limited requirements.

(1) An affected source which meets either of the criteria in paragraphs (b)(1)(i) through (ii) of this section does not have to meet the requirements of this subpart and of subpart A of this part except for the initial notification requirements of §63.6645(f).

(i) The stationary RICE is a new or reconstructed emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions.

(ii) The stationary RICE is a new or reconstructed limited use stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions.

(2) A new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis must meet the initial notification requirements of §63.6645(f) and the requirements of §§63.6625(c), 63.6650(g), and 63.6655(c). These stationary RICE do not have to meet the emission limitations and operating limitations of this subpart.

(3) The following stationary RICE do not have to meet the requirements of this subpart and of subpart A of this part, including initial notification requirements:

(i) Existing spark ignition 2 stroke lean burn (2SLB) stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;

(ii) Existing spark ignition 4 stroke lean burn (4SLB) stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;

(iii) Existing emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions.

(iv) Existing limited use stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;

(v) Existing stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis;

(c) *Stationary RICE subject to Regulations under 40 CFR Part 60.* An affected source that meets any of the criteria in paragraphs (c)(1) through (7) of this section must meet the requirements of this part by meeting the requirements of 40 CFR part 60 subpart IIII, for compression ignition engines or 40 CFR part 60 subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under this part.

(1) A new or reconstructed stationary RICE located at an area source;

(2) A new or reconstructed 2SLB stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;

(3) A new or reconstructed 4SLB stationary RICE with a site rating of less than 250 brake HP located at a major source of HAP emissions;

(4) A new or reconstructed spark ignition 4 stroke rich burn (4SRB) stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;

- (5) A new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis;
- (6) A new or reconstructed emergency or limited use stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;
- (7) A new or reconstructed compression ignition (CI) stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions.

§63.6595 When do I have to comply with this subpart?

(a) Affected sources.

- (1) If you have an existing stationary RICE, excluding existing non-emergency CI stationary RICE, with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the applicable emission limitations, operating limitations and other requirements no later than June 15, 2007. If you have an existing non-emergency CI stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, an existing stationary CI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, or an existing stationary CI RICE located at an area source of HAP emissions, you must comply with the applicable emission limitations, operating limitations, and other requirements no later than May 3, 2013. If you have an existing stationary SI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, or an existing stationary SI RICE located at an area source of HAP emissions, you must comply with the applicable emission limitations, operating limitations, and other requirements no later than October 19, 2013.
- (2) If you start up your new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions before August 16, 2004, you must comply with the applicable emission limitations and operating limitations in this subpart no later than August 16, 2004.
- (3) If you start up your new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions after August 16, 2004, you must comply with the applicable emission limitations and operating limitations in this subpart upon startup of your affected source.
- (4) If you start up your new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions before January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart no later than January 18, 2008.
- (5) If you start up your new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions after January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart upon startup of your affected source.
- (6) If you start up your new or reconstructed stationary RICE located at an area source of HAP emissions before January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart no later than January 18, 2008.

(7) If you start up your new or reconstructed stationary RICE located at an area source of HAP emissions after January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart upon startup of your affected source.

(b) *Area sources that become major sources.* If you have an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP, the compliance dates in paragraphs (b)(1) and (2) of this section apply to you.

(1) Any stationary RICE for which construction or reconstruction is commenced after the date when your area source becomes a major source of HAP must be in compliance with this subpart upon startup of your affected source.

(2) Any stationary RICE for which construction or reconstruction is commenced before your area source becomes a major source of HAP must be in compliance with the provisions of this subpart that are applicable to RICE located at major sources within 3 years after your area source becomes a major source of HAP.

(c) If you own or operate an affected source, you must meet the applicable notification requirements in §63.6645 and in 40 CFR part 63, subpart A.

Emission and Operating Limitations

§63.6600 What emission limitations and operating limitations must I meet if I own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions?

Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in §63.6620 and Table 4 to this subpart.

(a) If you own or operate an existing, new, or reconstructed spark ignition 4SRB stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations in Table 1a to this subpart and the operating limitations in Table 1b to this subpart which apply to you.

(b) If you own or operate a new or reconstructed 2SLB stationary RICE with a site rating of more than 500 brake HP located at major source of HAP emissions, a new or reconstructed 4SLB stationary RICE with a site rating of more than 500 brake HP located at major source of HAP emissions, or a new or reconstructed CI stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations in Table 2a to this subpart and the operating limitations in Table 2b to this subpart which apply to you.

(c) If you own or operate any of the following stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the emission limitations in Tables 1a, 2a, 2c, and 2d to this subpart or operating limitations in Tables 1b and 2b to this subpart: an existing 2SLB stationary RICE; an existing 4SLB stationary RICE; a stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis; an emergency stationary RICE; or a limited use stationary RICE.

(d) If you own or operate an existing non-emergency stationary CI RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations in Table 2c to this subpart and the operating limitations in Table 2b to this subpart which apply to you.

§63.6601 What emission limitations must I meet if I own or operate a new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 brake HP and less than or equal to 500 brake HP located at a major source of HAP emissions?

Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in §63.6620 and Table 4 to this subpart. If you own or operate a new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at major source of HAP emissions manufactured on or after January 1, 2008, you must comply with the emission limitations in Table 2a to this subpart and the operating limitations in Table 2b to this subpart which apply to you.

§63.6602 What emission limitations and other requirements must I meet if I own or operate an existing stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions?

If you own or operate an existing stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations and other requirements in Table 2c to this subpart which apply to you. Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in §63.6620 and Table 4 to this subpart.

§63.6603 What emission limitations, operating limitations, and other requirements must I meet if I own or operate an existing stationary RICE located at an area source of HAP emissions?

Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in §63.6620 and Table 4 to this subpart.

(a) If you own or operate an existing stationary RICE located at an area source of HAP emissions, you must comply with the requirements in Table 2d to this subpart and the operating limitations in Table 2b to this subpart that apply to you.

(b) If you own or operate an existing stationary non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP that meets either paragraph (b)(1) or (2) of this section, you do not have to meet the numerical CO emission limitations specified in Table 2d of this subpart. Existing stationary non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP that meet either paragraph (b)(1) or (2) of this section must meet the management practices that are shown for stationary non-emergency CI RICE with a site rating of less than or equal to 300 HP in Table 2d of this subpart.

(1) The area source is located in an area of Alaska that is not accessible by the Federal Aid Highway System (FAHS).

(2) The stationary RICE is located at an area source that meets paragraphs (b)(2)(i), (ii), and (iii) of this section.

(i) The only connection to the FAHS is through the Alaska Marine Highway System (AMHS), or the stationary RICE operation is within an isolated grid in Alaska that is not connected to the statewide electrical grid referred to as the Alaska Railbelt Grid.

(ii) At least 10 percent of the power generated by the stationary RICE on an annual basis is used for residential purposes.

(iii) The generating capacity of the area source is less than 12 megawatts, or the stationary RICE is used exclusively for backup power for renewable energy.

(c) If you own or operate an existing stationary non-emergency CI RICE with a site rating of more than 300 HP located on an offshore vessel that is an area source of HAP and is a nonroad vehicle that is an Outer Continental Shelf (OCS) source as defined in 40 CFR 55.2, you do not have to meet the numerical CO emission limitations specified in Table 2d of this subpart. You must meet all of the following management practices:

(1) Change oil every 1,000 hours of operation or within 1 year + 30 days of the previous change, whichever comes first. Sources have the option to utilize an oil analysis program as described in § 63.6625(i) in order to extend the specified oil change requirement.

(2) Inspect and clean air filters every 750 hours of operation or within 1 year + 30 days of the previous inspection, whichever comes first, and replace as necessary.

(3) Inspect fuel filters and belts, if installed, every 750 hours of operation or within 1 year + 30 days of the previous inspection, whichever comes first, and replace as necessary.

(4) Inspect all flexible hoses every 1,000 hours of operation or within 1 year + 30 days of the previous inspection, whichever comes first, and replace as necessary.

(d) If you own or operate an existing non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions that is certified to the Tier 1 or Tier 2 emission standards in Table 1 of 40 CFR 89.112 and that is subject to an enforceable state or local standard that requires the engine to be replaced no later than June 1, 2018, you may until January 1, 2015, or 12 years after the installation date of the engine (whichever is later), but not later than June 1, 2018, choose to comply with the management practices that are shown for stationary non-emergency CI RICE with a site rating of less than or equal to 300 HP in Table 2d of this subpart instead of the applicable emission limitations in Table 2d, operating limitations in Table 2b, and crankcase ventilation system requirements in §63.6625(g). You must comply with the emission limitations in Table 2d and operating limitations in Table 2b that apply for non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions by January 1, 2015, or 12 years after the installation date of the engine (whichever is later), but not later than June 1, 2018. You must also comply with the crankcase ventilation system requirements in §63.6625(g) by January 1, 2015, or 12 years after the installation date of the engine (whichever is later), but not later than June 1, 2018.

(e) If you own or operate an existing non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions that is certified to the Tier 3 (Tier 2 for engines above 560 kilowatt (kW)) emission standards in Table 1 of 40 CFR 89.112, you may comply with the requirements under this part by meeting the requirements for Tier 3 engines (Tier 2 for engines above 560 kW) in 40 CFR part 60 subpart IIII instead of the emission limitations and other requirements that would otherwise

apply under this part for existing non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions.

(f) An existing non-emergency SI 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at area sources of HAP must meet the definition of remote stationary RICE in §63.6675 on the initial compliance date for the engine, October 19, 2013, in order to be considered a remote stationary RICE under this subpart. Owners and operators of existing non-emergency SI 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at area sources of HAP that meet the definition of remote stationary RICE in §63.6675 of this subpart as of October 19, 2013 must evaluate the status of their stationary RICE every 12 months. Owners and operators must keep records of the initial and annual evaluation of the status of the engine. If the evaluation indicates that the stationary RICE no longer meets the definition of remote stationary RICE in §63.6675 of this subpart, the owner or operator must comply with all of the requirements for existing non-emergency SI 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at area sources of HAP that are not remote stationary RICE within 1 year of the evaluation.

§63.6604 What fuel requirements must I meet if I own or operate a stationary CI RICE?

(a) If you own or operate an existing non-emergency, non-black start CI stationary RICE with a site rating of more than 300 brake HP with a displacement of less than 30 liters per cylinder that uses diesel fuel, you must use diesel fuel that meets the requirements in 40 CFR 1090.305 for nonroad diesel fuel.

(b) Beginning January 1, 2015, if you own or operate an existing emergency CI stationary RICE with a site rating of more than 100 brake HP and a displacement of less than 30 liters per cylinder that uses diesel fuel and operates for the purpose specified in § 63.6640(f)(4)(ii), you must use diesel fuel that meets the requirements in [40 CFR 1090.305](#) for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to January 1, 2015, may be used until depleted.

(c)[reserved]

(d) Existing CI stationary RICE located in Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, at area sources in areas of Alaska that meet either §63.6603(b)(1) or §63.6603(b)(2), or are on offshore vessels that meet §63.6603(c) are exempt from the requirements of this section.

General Compliance Requirements

§63.6605 What are my general requirements for complying with this subpart?

(a) You must be in compliance with the emission limitations, operating limitations, and other requirements in this subpart that apply to you at all times.

(b) At all times you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results,

review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

Testing and Initial Compliance Requirements

§63.6610 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions?

If you own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions you are subject to the requirements of this section.

- (a) You must conduct the initial performance test or other initial compliance demonstrations in Table 4 to this subpart that apply to you within 180 days after the compliance date that is specified for your stationary RICE in §63.6595 and according to the provisions in §63.7(a)(2).
- (b) If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004 and own or operate stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must demonstrate initial compliance with either the proposed emission limitations or the promulgated emission limitations no later than February 10, 2005 or no later than 180 days after startup of the source, whichever is later, according to §63.7(a)(2)(ix).
- (c) If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004 and own or operate stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, and you chose to comply with the proposed emission limitations when demonstrating initial compliance, you must conduct a second performance test to demonstrate compliance with the promulgated emission limitations by December 13, 2007 or after startup of the source, whichever is later, according to §63.7(a)(2)(ix).
- (d) An owner or operator is not required to conduct an initial performance test on units for which a performance test has been previously conducted, but the test must meet all of the conditions described in paragraphs (d)(1) through (5) of this section.
 - (1) The test must have been conducted using the same methods specified in this subpart, and these methods must have been followed correctly.
 - (2) The test must not be older than 2 years.
 - (3) The test must be reviewed and accepted by the Administrator.
 - (4) Either no process or equipment changes must have been made since the test was performed, or the owner or operator must be able to demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process or equipment changes.
 - (5) The test must be conducted at any load condition within plus or minus 10 percent of 100 percent load.

§63.6611 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate a new or reconstructed 4SLB SI stationary RICE with a site rating of

greater than or equal to 250 and less than or equal to 500 brake HP located at a major source of HAP emissions?

If you own or operate a new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at a major source of HAP emissions, you must conduct an initial performance test within 240 days after the compliance date that is specified for your stationary RICE in §63.6595 and according to the provisions specified in Table 4 to this subpart, as appropriate.

§63.6612 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate an existing stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing stationary RICE located at an area source of HAP emissions?

If you own or operate an existing stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing stationary RICE located at an area source of HAP emissions you are subject to the requirements of this section.

- (a) You must conduct any initial performance test or other initial compliance demonstration according to Tables 4 and 5 to this subpart that apply to you within 180 days after the compliance date that is specified for your stationary RICE in §63.6595 and according to the provisions in §63.7(a)(2).
- (b) An owner or operator is not required to conduct an initial performance test on a unit for which a performance test has been previously conducted, but the test must meet all of the conditions described in paragraphs (b)(1) through (4) of this section.
 - (1) The test must have been conducted using the same methods specified in this subpart, and these methods must have been followed correctly.
 - (2) The test must not be older than 2 years.
 - (3) The test must be reviewed and accepted by the Administrator.
 - (4) Either no process or equipment changes must have been made since the test was performed, or the owner or operator must be able to demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process or equipment changes.

§63.6615 When must I conduct subsequent performance tests?

If you must comply with the emission limitations and operating limitations, you must conduct subsequent performance tests as specified in Table 3 of this subpart.

§63.6620 What performance tests and other procedures must I use?

- (a) You must conduct each performance test in Tables 3 and 4 of this subpart that applies to you.
- (b) Each performance test must be conducted according to the requirements that this subpart specifies in Table 4 to this subpart. If you own or operate a non-operational stationary RICE that is subject to performance testing, you do not need to start up the engine solely to conduct the performance test. Owners and operators of a non-operational engine can conduct the performance test when the engine is started up again. The test must be conducted at any load condition within plus or minus 10 percent of 100 percent load for the stationary RICE listed in paragraphs (b)(1) through (4) of this section.

- (1) Non-emergency 4SRB stationary RICE with a site rating of greater than 500 brake HP located at a major source of HAP emissions.
- (2) New non-emergency 4SLB stationary RICE with a site rating of greater than or equal to 250 brake HP located at a major source of HAP emissions.
- (3) New non-emergency 2SLB stationary RICE with a site rating of greater than 500 brake HP located at a major source of HAP emissions.
- (4) New non-emergency CI stationary RICE with a site rating of greater than 500 brake HP located at a major source of HAP emissions.

(c) [Reserved]

(d) You must conduct three separate test runs for each performance test required in this section, as specified in §63.7(e)(3). Each test run must last at least 1 hour, unless otherwise specified in this subpart.

(e)(1) You must use Equation 1 of this section to determine compliance with the percent reduction requirement:

$$\frac{C_i - C_o}{C_i} \times 100 = R \quad (\text{Eq. 1})$$

Where:

C_i = concentration of carbon monoxide (CO), total hydrocarbons (THC), or formaldehyde at the control device inlet,

C_o = concentration of CO, THC, or formaldehyde at the control device outlet, and

R = percent reduction of CO, THC, or formaldehyde emissions.

(2) You must normalize the CO, THC, or formaldehyde concentrations at the inlet and outlet of the control device to a dry basis and to 15 percent oxygen, or an equivalent percent carbon dioxide (CO_2). If pollutant concentrations are to be corrected to 15 percent oxygen and CO_2 concentration is measured in lieu of oxygen concentration measurement, a CO_2 correction factor is needed. Calculate the CO_2 correction factor as described in paragraphs (e)(2)(i) through (iii) of this section.

(i) Calculate the fuel-specific F_o value for the fuel burned during the test using values obtained from Method 19, Section 5.2, and the following equation:

$$F_o = \frac{0.209 F_d}{F_c} \quad (\text{Eq. 2})$$

Where:

F_o = Fuel factor based on the ratio of oxygen volume to the ultimate CO_2 volume produced by the fuel at zero percent excess air.

0.209 = Fraction of air that is oxygen, percent/100.

F_d = Ratio of the volume of dry effluent gas to the gross calorific value of the fuel from Method 19, dsm^3/J ($\text{dscf}/106 \text{ Btu}$).

F_c = Ratio of the volume of CO_2 produced to the gross calorific value of the fuel from Method 19, dsm^3/J ($\text{dscf}/106 \text{ Btu}$)

(ii) Calculate the CO₂ correction factor for correcting measurement data to 15 percent O₂, as follows:

$$X_{CO_2} = \frac{5.9}{F_O} \quad (\text{Eq. 3})$$

Where:

X_{CO2} = CO₂ correction factor, percent.

5.9 = 20.9 percent O₂—15 percent O₂, the defined O₂ correction value, percent.

(iii) Calculate the CO, THC, and formaldehyde gas concentrations adjusted to 15 percent O₂ using CO₂ as follows:

$$C_{adj} = C_d \frac{X_{CO_2}}{\%CO_2} \quad (\text{Eq. 4})$$

Where:

C_{adj} = Calculated concentration of CO, THC, or formaldehyde adjusted to 15 percent O₂.

C_d = Measured concentration of CO, THC, or formaldehyde, uncorrected.

X_{CO2} = CO₂ correction factor, percent.

%CO₂ = Measured CO₂ concentration measured, dry basis, percent.

(f) If you comply with the emission limitation to reduce CO and you are not using an oxidation catalyst, if you comply with the emission limitation to reduce formaldehyde and you are not using NSCR, or if you comply with the emission limitation to limit the concentration of formaldehyde in the stationary RICE exhaust and you are not using an oxidation catalyst or NSCR, you must petition the Administrator for operating limitations to be established during the initial performance test and continuously monitored thereafter; or for approval of no operating limitations. You must not conduct the initial performance test until after the petition has been approved by the Administrator.

(g) If you petition the Administrator for approval of operating limitations, your petition must include the information described in paragraphs (g)(1) through (5) of this section.

- (1) Identification of the specific parameters you propose to use as operating limitations;
- (2) A discussion of the relationship between these parameters and HAP emissions, identifying how HAP emissions change with changes in these parameters, and how limitations on these parameters will serve to limit HAP emissions;
- (3) A discussion of how you will establish the upper and/or lower values for these parameters which will establish the limits on these parameters in the operating limitations;
- (4) A discussion identifying the methods you will use to measure and the instruments you will use to monitor these parameters, as well as the relative accuracy and precision of these methods and instruments; and
- (5) A discussion identifying the frequency and methods for recalibrating the instruments you will use for monitoring these parameters.

(h) If you petition the Administrator for approval of no operating limitations, your petition must include the information described in paragraphs (h)(1) through (7) of this section.

- (1) Identification of the parameters associated with operation of the stationary RICE and any emission control device which could change intentionally (*e.g.*, operator adjustment, automatic controller adjustment, etc.) or unintentionally (*e.g.*, wear and tear, error, etc.) on a routine basis or over time;
- (2) A discussion of the relationship, if any, between changes in the parameters and changes in HAP emissions;
- (3) For the parameters which could change in such a way as to increase HAP emissions, a discussion of whether establishing limitations on the parameters would serve to limit HAP emissions;
- (4) For the parameters which could change in such a way as to increase HAP emissions, a discussion of how you could establish upper and/or lower values for the parameters which would establish limits on the parameters in operating limitations;
- (5) For the parameters, a discussion identifying the methods you could use to measure them and the instruments you could use to monitor them, as well as the relative accuracy and precision of the methods and instruments;
- (6) For the parameters, a discussion identifying the frequency and methods for recalibrating the instruments you could use to monitor them; and
- (7) A discussion of why, from your point of view, it is infeasible or unreasonable to adopt the parameters as operating limitations.

(i) The engine percent load during a performance test must be determined by documenting the calculations, assumptions, and measurement devices used to measure or estimate the percent load in a specific application. A written report of the average percent load determination must be included in the notification of compliance status. The following information must be included in the written report: the engine model number, the engine manufacturer, the year of purchase, the manufacturer's site-rated brake horsepower, the ambient temperature, pressure, and humidity during the performance test, and all assumptions that were made to estimate or calculate percent load during the performance test must be clearly explained. If measurement devices such as flow meters, kilowatt meters, beta analyzers, stain gauges, etc. are used, the model number of the measurement device, and an estimate of its accurate in percentage of true value must be provided.

(j) Beginning on February 26, 2025, within 60 days after the date of completing each performance test required by this subpart, you must submit the results of the performance test following the procedure specified in § 63.9(k). Data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT website (<https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert>) at the time of the test must be submitted in a file format generated using the EPA's ERT. Alternatively, you may submit an electronic file consistent with the extensible markup language (XML) schema listed on the EPA's ERT website. Data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT website at the time of the test must be included as an attachment in the ERT or alternate electronic file.

§63.6625 What are my monitoring, installation, collection, operation, and maintenance requirements?

(a) If you elect to install a CEMS as specified in Table 5 of this subpart, you must install, operate, and maintain a CEMS to monitor CO and either O₂ or CO₂ according to the requirements in paragraphs (a)(1) through (4) of this section. If you are meeting a requirement to reduce CO emissions, the CEMS must be installed at both the inlet and outlet of the control device. If you are meeting a requirement to limit the concentration of CO, the CEMS must be installed at the outlet of the control device.

(1) Each CEMS must be installed, operated, and maintained according to the applicable performance specifications of 40 CFR part 60, appendix B.

(2) You must conduct an initial performance evaluation and an annual relative accuracy test audit (RATA) of each CEMS according to the requirements in §63.8 and according to the applicable performance specifications of 40 CFR part 60, appendix B as well as daily and periodic data quality checks in accordance with 40 CFR part 60, appendix F, procedure 1.

(3) As specified in §63.8(c)(4)(ii), each CEMS must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period. You must have at least two data points, with each representing a different 15-minute period, to have a valid hour of data.

(4) The CEMS data must be reduced as specified in §63.8(g)(2) and recorded in parts per million or parts per billion (as appropriate for the applicable limitation) at 15 percent oxygen or the equivalent CO₂ concentration.

(5) Beginning on February 26, 2025, within 60 days after the date of completing each continuous emissions monitoring system (CEMS) performance evaluation (as defined in § 63.2) that includes a relative accuracy test audit (RATA), you must submit the results of the performance evaluation following the procedures specified in § 63.9(k). The results of performance evaluations of CEMS measuring RATA pollutants that are supported by the EPA's ERT as listed on the EPA's ERT website at the time of the evaluation must be submitted in a file format generated using the EPA's ERT.

Alternatively, you may submit an electronic file consistent with the XML schema listed on the EPA's ERT website. The results of performance evaluations of CEMS measuring RATA pollutants that are not supported by the EPA's ERT as listed on the EPA's ERT website at the time of the evaluation must be included as an attachment in the ERT or alternate electronic file.

(b) If you are required to install a continuous parameter monitoring system (CPMS) as specified in Table 5 of this subpart, you must install, operate, and maintain each CPMS according to the requirements in paragraphs (b)(1) through (6) of this section. For an affected source that is complying with the emission limitations and operating limitations on March 9, 2011, the requirements in paragraph (b) of this section are applicable September 6, 2011.

(1) You must prepare a site-specific monitoring plan that addresses the monitoring system design, data collection, and the quality assurance and quality control elements outlined in paragraphs (b)(1)(i) through (v) of this section and in §63.8(d). As specified in §63.8(f)(4), you may request approval of monitoring system quality assurance and quality control procedures alternative to those specified in paragraphs (b)(1) through (5) of this section in your site-specific monitoring plan.

(i) The performance criteria and design specifications for the monitoring system equipment, including the sample interface, detector signal analyzer, and data acquisition and calculations;

- (ii) Sampling interface (*e.g.*, thermocouple) location such that the monitoring system will provide representative measurements;
- (iii) Equipment performance evaluations, system accuracy audits, or other audit procedures;
- (iv) Ongoing operation and maintenance procedures in accordance with provisions in §63.8(c)(1)(ii) and (c)(3); and
- (v) Ongoing reporting and recordkeeping procedures in accordance with provisions in §63.10(c), (e)(1), and (e)(2)(i).

(2) You must install, operate, and maintain each CPMS in continuous operation according to the procedures in your site-specific monitoring plan.

(3) The CPMS must collect data at least once every 15 minutes (see also §63.6635).

(4) For a CPMS for measuring temperature range, the temperature sensor must have a minimum tolerance of 2.8 degrees Celsius (5 degrees Fahrenheit) or 1 percent of the measurement range, whichever is larger.

(5) You must conduct the CPMS equipment performance evaluation, system accuracy audits, or other audit procedures specified in your site-specific monitoring plan at least annually.

(6) You must conduct a performance evaluation of each CPMS in accordance with your site-specific monitoring plan.

(c) If you are operating a new or reconstructed stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, you must monitor and record your fuel usage daily with separate fuel meters to measure the volumetric flow rate of each fuel. In addition, you must operate your stationary RICE in a manner which reasonably minimizes HAP emissions.

(d) If you are operating a new or reconstructed emergency 4SLB stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at a major source of HAP emissions, you must install a non-resettable hour meter prior to the startup of the engine.

(e) If you own or operate any of the following stationary RICE, you must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions:

(1) An existing stationary RICE with a site rating of less than 100 HP located at a major source of HAP emissions;

(2) An existing emergency or black start stationary RICE with a site rating of less than or equal to 500 HP located at a major source of HAP emissions;

(3) An existing emergency or black start stationary RICE located at an area source of HAP emissions;

(4) An existing non-emergency, non-black start stationary CI RICE with a site rating less than or equal to 300 HP located at an area source of HAP emissions;

- (5) An existing non-emergency, non-black start 2SLB stationary RICE located at an area source of HAP emissions;
 - (6) An existing non-emergency, non-black start stationary RICE located at an area source of HAP emissions which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis.
 - (7) An existing non-emergency, non-black start 4SLB stationary RICE with a site rating less than or equal to 500 HP located at an area source of HAP emissions;
 - (8) An existing non-emergency, non-black start 4SRB stationary RICE with a site rating less than or equal to 500 HP located at an area source of HAP emissions;
 - (9) An existing, non-emergency, non-black start 4SLB stationary RICE with a site rating greater than 500 HP located at an area source of HAP emissions that is operated 24 hours or less per calendar year; and
 - (10) An existing, non-emergency, non-black start 4SRB stationary RICE with a site rating greater than 500 HP located at an area source of HAP emissions that is operated 24 hours or less per calendar year.
- (f) If you own or operate an existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing emergency stationary RICE located at an area source of HAP emissions, you must install a non-resettable hour meter if one is not already installed.
- (g) If you own or operate an existing non-emergency, non-black start CI engine greater than or equal to 300 HP that is not equipped with a closed crankcase ventilation system, you must comply with either paragraph (g)(1) or paragraph (2) of this section. Owners and operators must follow the manufacturer's specified maintenance requirements for operating and maintaining the open or closed crankcase ventilation systems and replacing the crankcase filters, or can request the Administrator to approve different maintenance requirements that are as protective as manufacturer requirements. Existing CI engines located at area sources in areas of Alaska that meet either §63.6603(b)(1) or §63.6603(b)(2) do not have to meet the requirements of this paragraph (g). Existing CI engines located on offshore vessels that meet §63.6603(c) do not have to meet the requirements of this paragraph (g).
- (1) Install a closed crankcase ventilation system that prevents crankcase emissions from being emitted to the atmosphere, or
 - (2) Install an open crankcase filtration emission control system that reduces emissions from the crankcase by filtering the exhaust stream to remove oil mist, particulates and metals.
- (h) If you operate a new, reconstructed, or existing stationary engine, you must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Tables 1a, 2a, 2c, and 2d to this subpart apply.
- (i) If you own or operate a stationary CI engine that is subject to the work, operation or management practices in items 1 or 2 of table 2c to this subpart or in items 1 or 4 of table 2d to this subpart, you have the option of utilizing an oil analysis program in order to extend the specified oil and filter change requirement in tables 2c and 2d to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil and filter in table 2c or 2d to this subpart. The analysis program

must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil and filter. If any of the limits are exceeded, the engine owner or operator must change the oil and filter within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil and filter within 2 business days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil and filter changes for the engine. The analysis program must be part of the maintenance plan for the engine.

(j) If you own or operate a stationary SI engine that is subject to the work, operation or management practices in items 6, 7, or 8 of table 2c to this subpart or in items 5, 6, 7, 8, 10, 11, or 13 of table 2d to this subpart, you have the option of utilizing an oil analysis program in order to extend the specified oil and filter change requirement in tables 2c and 2d to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil and filter in table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil and filter. If any of the limits are exceeded, the engine owner or operator must change the oil and filter within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil and filter within 2 business days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil and filter changes for the engine. The analysis program must be part of the maintenance plan for the engine.

§63.6630 How do I demonstrate initial compliance with the emission limitations, operating limitations, and other requirements?

- (a) You must demonstrate initial compliance with each emission limitation, operating limitation, and other requirement that applies to you according to Table 5 of this subpart.
- (b) During the initial performance test, you must establish each operating limitation in Tables 1b and 2b of this subpart that applies to you.
- (c) You must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in §63.6645.
- (d) Non-emergency 4SRB stationary RICE complying with the requirement to reduce formaldehyde emissions by 76 percent or more can demonstrate initial compliance with the formaldehyde emission limit by testing for THC instead of formaldehyde. The testing must be conducted according to the

requirements in Table 4 of this subpart. The average reduction of emissions of THC determined from the performance test must be equal to or greater than 30 percent.

(e) The initial compliance demonstration required for existing non-emergency 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year must be conducted according to the following requirements:

- (1) The compliance demonstration must consist of at least three test runs.
- (2) Each test run must be of at least 15 minute duration, except that each test conducted using the method in appendix A to this subpart must consist of at least one measurement cycle and include at least 2 minutes of test data phase measurement.
- (3) If you are demonstrating compliance with the CO concentration or CO percent reduction requirement, you must measure CO emissions using one of the CO measurement methods specified in Table 4 of this subpart, or using appendix A to this subpart.
- (4) If you are demonstrating compliance with the THC percent reduction requirement, you must measure THC emissions using Method 25A, reported as propane, of 40 CFR part 60, appendix A.
- (5) You must measure O₂ using one of the O₂ measurement methods specified in Table 4 of this subpart. Measurements to determine O₂ concentration must be made at the same time as the measurements for CO or THC concentration.
- (6) If you are demonstrating compliance with the CO or THC percent reduction requirement, you must measure CO or THC emissions and O₂ emissions simultaneously at the inlet and outlet of the control device.

Continuous Compliance Requirements

§63.6635 How do I monitor and collect data to demonstrate continuous compliance?

- (a) If you must comply with emission and operating limitations, you must monitor and collect data according to this section.
- (b) Except for monitor malfunctions, associated repairs, required performance evaluations, and required quality assurance or control activities, you must monitor continuously at all times that the stationary RICE is operating. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.
- (c) You may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emission or operating levels. You must, however, use all the valid data collected during all other periods.

§63.6640 How do I demonstrate continuous compliance with the emission limitations, operating limitations, and other requirements?

- (a) You must demonstrate continuous compliance with each emission limitation, operating limitation, and other requirements in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart that apply to you according to methods specified in Table 6 to this subpart.
- (b) You must report each instance in which you did not meet each emission limitation or operating limitation in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart that apply to you. These instances are deviations from the emission and operating limitations in this subpart. These deviations must be reported according to the requirements in §63.6650. If you change your catalyst, you must reestablish the values of the operating parameters measured during the initial performance test. When you reestablish the values of your operating parameters, you must also conduct a performance test to demonstrate that you are meeting the required emission limitation applicable to your stationary RICE.
- (c) The annual compliance demonstration required for existing non-emergency 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year must be conducted according to the following requirements:
- (1) The compliance demonstration must consist of at least one test run.
 - (2) Each test run must be of at least 15 minute duration, except that each test conducted using the method in appendix A to this subpart must consist of at least one measurement cycle and include at least 2 minutes of test data phase measurement.
 - (3) If you are demonstrating compliance with the CO concentration or CO percent reduction requirement, you must measure CO emissions using one of the CO measurement methods specified in Table 4 of this subpart, or using appendix A to this subpart.
 - (4) If you are demonstrating compliance with the THC percent reduction requirement, you must measure THC emissions using Method 25A, reported as propane, of 40 CFR part 60, appendix A.
 - (5) You must measure O₂ using one of the O₂ measurement methods specified in Table 4 of this subpart. Measurements to determine O₂ concentration must be made at the same time as the measurements for CO or THC concentration.
 - (6) If you are demonstrating compliance with the CO or THC percent reduction requirement, you must measure CO or THC emissions and O₂ emissions simultaneously at the inlet and outlet of the control device.
 - (7) If the results of the annual compliance demonstration show that the emissions exceed the levels specified in Table 6 of this subpart, the stationary RICE must be shut down as soon as safely possible, and appropriate corrective action must be taken (e.g., repairs, catalyst cleaning, catalyst replacement). The stationary RICE must be retested within 7 days of being restarted and the emissions must meet the levels specified in Table 6 of this subpart. If the retest shows that the emissions continue to exceed the specified levels, the stationary RICE must again be shut down as soon as safely possible, and the stationary RICE may not operate, except for purposes of startup and testing, until the owner/operator demonstrates through testing that the emissions do not exceed the levels specified in Table 6 of this subpart.
- (d) For new, reconstructed, and rebuilt stationary RICE, deviations from the emission or operating limitations that occur during the first 200 hours of operation from engine startup (engine burn-in period)

are not violations. Rebuilt stationary RICE means a stationary RICE that has been rebuilt as that term is defined in 40 CFR 94.11(a).

(e) You must also report each instance in which you did not meet the requirements in Table 8 to this subpart that apply to you. If you own or operate a new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions (except new or reconstructed 4SLB engines greater than or equal to 250 and less than or equal to 500 brake HP), a new or reconstructed stationary RICE located at an area source of HAP emissions, or any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in Table 8 to this subpart: An existing 2SLB stationary RICE, an existing 4SLB stationary RICE, an existing emergency stationary RICE, an existing limited use stationary RICE, or an existing stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis. If you own or operate any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in Table 8 to this subpart, except for the initial notification requirements: a new or reconstructed stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, a new or reconstructed emergency stationary RICE, or a new or reconstructed limited use stationary RICE.

(f) If you own or operate an emergency stationary RICE, you must operate the emergency stationary RICE according to the requirements in paragraphs (f)(1) through (4) of this section. In order for the engine to be considered an emergency stationary RICE under this subpart, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1) through (4), is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1) through (4), the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.

(1) There is no time limit on the use of emergency stationary RICE in emergency situations.

(2) You may operate your emergency stationary RICE for the purpose specified in paragraph (f)(2)(i) of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraphs (f)(3) and (4) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2).

(i) Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year.

(ii) [reserved]

(iii) [reserved]

(3) Emergency stationary RICE located at major sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are

counted as part of the 100 hours per calendar year for maintenance and testing provided in paragraph (f)(2) of this section. The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

(4) Emergency stationary RICE located at area sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in paragraph (f)(2) of this section. Except as provided in paragraphs (f)(4)(i) and (ii) of this section, the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

(i) Prior to May 3, 2014, the 50 hours per year for non-emergency situations can be used for peak shaving or non-emergency demand response to generate income for a facility, or to otherwise supply power as part of a financial arrangement with another entity if the engine is operated as part of a peak shaving (load management program) with the local distribution system operator and the power is provided only to the facility itself or to support the local distribution system.

(ii) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:

(A) The engine is dispatched by the local balancing authority or local transmission and distribution system operator.

(B) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.

(C) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.

(D) The power is provided only to the facility itself or to support the local transmission and distribution system.

(E) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

Notifications, Reports, and Records

§63.6645 What notifications must I submit and when?

(a) You must submit all of the notifications in §§63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), 63.9(b) through (e), and (g) and (h) that apply to you by the dates specified if you own or operate any of the following;

- (1) An existing stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions.
 - (2) An existing stationary RICE located at an area source of HAP emissions.
 - (3) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions.
 - (4) A new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 HP located at a major source of HAP emissions.
 - (5) This requirement does not apply if you own or operate an existing stationary RICE less than 100 HP, an existing stationary emergency RICE, or an existing stationary RICE that is not subject to any numerical emission standards.
- (b) As specified in § 63.9(b)(2), if you start up your stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions before the effective date of this subpart, you must submit an initial notification not later than December 13, 2004, or no later than 120 days after the source becomes subject to this subpart, whichever is later. Beginning on February 26, 2025, submit the notification electronically in portable document format (PDF) consistent with § 63.9(k).
- (c) If you start up your new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions on or after August 16, 2004, you must submit an initial notification not later than 120 days after you become subject to this subpart. Beginning on February 26, 2025, submit the notification electronically in PDF consistent with § 63.9(k).
- (d) As specified in § 63.9(b)(2), if you start up your stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions before the effective date of this subpart and you are required to submit an initial notification, you must submit an initial notification not later than July 16, 2008, or no later than 120 days after the source becomes subject to this subpart, whichever is later. Beginning on February 26, 2025, submit the notification electronically in PDF consistent with § 63.9(k).
- (e) If you start up your new or reconstructed stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions on or after March 18, 2008, and you are required to submit an initial notification, you must submit an initial notification not later than 120 days after you become subject to this subpart. Beginning on February 26, 2025, submit the notification electronically in PDF consistent with § 63.9(k).
- (f) If you are required to submit an Initial Notification but are otherwise not affected by the requirements of this subpart, in accordance with §63.6590(b), your notification should include the information in §63.9(b)(2)(i) through (v), and a statement that your stationary RICE has no additional requirements and explain the basis of the exclusion (for example, that it operates exclusively as an emergency stationary RICE if it has a site rating of more than 500 brake HP located at a major source of HAP emissions).
- (g) If you are required to conduct a performance test, you must submit a Notification of Intent to conduct a performance test at least 60 days before the performance test is scheduled to begin as required in §63.7(b)(1).

(h) If you are required to conduct a performance test or other initial compliance demonstration as specified in Tables 4 and 5 to this subpart, you must submit a Notification of Compliance Status according to §63.9(h)(2)(ii).

(1) For each initial compliance demonstration required in Table 5 to this subpart that does not include a performance test, you must submit the Notification of Compliance Status before the close of business on the 30th day following the completion of the initial compliance demonstration.

(2) Before February 26, 2025, for each initial compliance demonstration required in table 5 to this subpart that includes a performance test conducted according to the requirements in table 3 to this subpart, you must submit the Notification of Compliance Status, including the performance test results, before the close of business on the 60th day following the completion of the performance test according to § 63.10(d)(2). Beginning on February 26, 2025, for each initial compliance demonstration required in table 5 to this subpart that includes a performance test conducted according to the requirements in table 3 to this subpart, you must submit the Notification of Compliance Status, including a summary of the performance test results, in PDF to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI), before the close of business on the 60th day following the completion of the performance test following the procedure specified in § 63.9(k), except any Confidential Business Information (CBI) is to be submitted according to paragraphs (h)(2)(i) and (ii) of this section. Do not use CEDRI to submit information you claim as CBI. Although we do not expect persons to assert a claim of CBI, if you wish to assert a CBI claim for some of the information in the report, you must submit a complete file, including information claimed to be CBI, to the EPA following the procedures in paragraphs (h)(2)(i) and (ii) of this section. Clearly mark the part or all of the information that you claim to be CBI. Information not marked as CBI may be authorized for public release without prior notice. Information marked as CBI will not be disclosed except in accordance with procedures set forth in 40 CFR part 2. All CBI claims must be asserted at the time of submission. Anything submitted using CEDRI cannot later be claimed CBI. Furthermore, under CAA section 114(c), emissions data is not entitled to confidential treatment, and the EPA is required to make emissions data available to the public. Thus, emissions data will not be protected as CBI and will be made publicly available. You must submit the same file submitted to the CBI office with the CBI omitted to the EPA via the EPA's CDX as described earlier in this paragraph (h)(2). (i) If you own or operate an existing non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions that is certified to the Tier 1 or Tier 2 emission standards in Table 1 of 40 CFR 89.112 and subject to an enforceable state or local standard requiring engine replacement and you intend to meet management practices rather than emission limits, as specified in §63.6603(d), you must submit a notification by March 3, 2013, stating that you intend to use the provision in §63.6603(d) and identifying the state or local regulation that the engine is subject to.

§63.6650 What reports must I submit and when?

(a) You must submit each report in Table 7 of this subpart that applies to you.

(b) Unless the Administrator has approved a different schedule for submission of reports under §63.10(a), you must submit each report by the date in Table 7 of this subpart and according to the requirements in paragraphs (b)(1) through (b)(9) of this section.

- (1) For semiannual Compliance reports, the first Compliance report must cover the period beginning on the compliance date that is specified for your affected source in §63.6595 and ending on June 30 or December 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for your source in §63.6595.
 - (2) For semiannual Compliance reports, the first Compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date follows the end of the first calendar half after the compliance date that is specified for your affected source in §63.6595.
 - (3) For semiannual Compliance reports, each subsequent Compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.
 - (4) For semiannual Compliance reports, each subsequent Compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.
 - (5) For each stationary RICE that is subject to permitting regulations pursuant to 40 CFR part 70 or 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6 (a)(3)(iii)(A), you may submit the first and subsequent Compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (b)(4) of this section.
 - (6) For annual Compliance reports, the first Compliance report must cover the period beginning on the compliance date that is specified for your affected source in §63.6595 and ending on December 31.
 - (7) For annual Compliance reports, the first Compliance report must be postmarked or delivered no later than January 31 following the end of the first calendar year after the compliance date that is specified for your affected source in §63.6595.
 - (8) For annual Compliance reports, each subsequent Compliance report must cover the annual reporting period from January 1 through December 31.
 - (9) For annual Compliance reports, each subsequent Compliance report must be postmarked or delivered no later than January 31.
- (c) The Compliance report must contain the information in paragraphs (c)(1) through (8) of this section.
- (1) Company name and address.
 - (2) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.
 - (3) Date of report and beginning and ending dates of the reporting period.
 - (4) If you had a malfunction during the reporting period, the compliance report must include the starting and ending date and time, the duration (in hours), and a brief description for each malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with § 63.6605(b), including actions taken to correct a malfunction. (5) If there are no deviations from

any emission or operating limitations that apply to you, a statement that there were no deviations from the emission or operating limitations during the reporting period.

(6) If there were no periods during which the continuous monitoring system (CMS), including CEMS and CPMS, was out-of-control, as specified in §63.8(c)(7), a statement that there were no periods during which the CMS was out-of-control during the reporting period.

(7) Engine site rating in brake HP, year construction of the engine commenced (as defined in § 63.2, where the exact year is not known, provide the best estimate), and type of engine (CI, SI 2SLB, SI 4SLB, or SI 4SRB).

(8) Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place.

(9) An engine can be claimed as exempt from reporting coordinates (latitude/longitude) via CEDRI if:

(i) During the reporting period, the engine will be owned by, or operated by or for, an agency of the Federal Government responsible for national defense; and

(ii) The agency determines that disclosing the coordinates to the general public would be a threat to national security.

(d) For each deviation from an emission or operating limitation that occurs for a stationary RICE where you are not using a CMS to comply with the emission or operating limitations in this subpart, the Compliance report must contain the information in paragraphs (c)(1) through (8) of this section and the information in paragraphs (d)(1) and (2) of this section. (2) Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.

(e) For each deviation from an emission or operating limitation occurring for a stationary RICE where you are using a CMS to comply with the emission and operating limitations in this subpart, you must include information in paragraphs (c)(1) through (8) and (e)(1) through (13) of this section.

(2) The start and end date and time and the duration (in hours) that each CMS was inoperative, except for zero (low-level) and high-level checks.

(3) The start and end date and time and the duration (in hours) that each CMS was out-of-control, including the information in § 63.8(c)(8).

(4) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of malfunction or during another period.

(5) A summary of the total duration (in hours) of the deviation during the reporting period, and the total duration as a percent of the total source operating time during that reporting period.

(6) A breakdown of the total duration (in hours) of the deviations during the reporting period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes.

(7) A summary of the total duration (in hours) of CMS downtime during the reporting period, and the total duration of CMS downtime as a percent of the total operating time of the stationary RICE at which the CMS downtime occurred during that reporting period.

(8) An identification of each parameter and pollutant (CO or formaldehyde) that was monitored at the stationary RICE.

(9) [Reserved]

(10) A brief description of the CMS.

(11) The date of the latest CMS certification or audit.

(12) A description of any changes in CMS, processes, or controls since the last reporting period.

(13) The total operating time of the stationary RICE at which the deviation occurred during the reporting period.

(f) Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 or 71 must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6 (a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a Compliance report pursuant to table 7 of this subpart along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the Compliance report includes all required information concerning deviations from any emission or operating limitation in this subpart, submission of the Compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a Compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority. Beginning on February 26, 2025, the semiannual and annual compliance report required in table 7 of this subpart must be submitted according to paragraph (i) of this section. Only those elements required under this subpart are required to be submitted according to paragraph (i) of this section. (g) If you are operating as a new or reconstructed stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, you must submit an annual report according to Table 7 of this subpart by the date specified unless the Administrator has approved a different schedule, according to the information described in paragraphs (b)(1) through (b)(5) of this section. You must report the data specified in (g)(1) through (g)(3) of this section.

(1) Fuel flow rate of each fuel and the heating values that were used in your calculations. You must also demonstrate that the percentage of heat input provided by landfill gas or digester gas is equivalent to 10 percent or more of the total fuel consumption on an annual basis.

(2) The operating limits provided in your federally enforceable permit, and any deviations from these limits.

(3) Any problems or errors suspected with the meters.

(h) If you own or operate an emergency stationary RICE with a site rating of more than 100 brake HP that operates for the purpose specified in § 63.6640(f)(4)(ii), you must submit an annual report according to the requirements in paragraphs (h)(1) through (3) of this section.

(1) The report must contain the following information:

(i) Company name and address where the engine is located.

(ii) Date of the report and beginning and ending dates of the reporting period.

(iii) Engine site rating in brake HP, year construction of the engine commenced (as defined in § 63.2, where the exact year is not known, provide the best estimate), and type of engine (CI, SI 2SLB, SI 4SLB, or SI 4SRB). Engine site rating and model year.

(iv) Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place.

(v) [reserved]

(vi) [reserved]

(vii) Hours spent for operation for the purpose specified in §63.6640(f)(4)(ii), including the date, start time, and end time for engine operation for the purposes specified in §63.6640(f)(4)(ii). The report must also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine.

(viii) If there were no deviations from the fuel requirements in §63.6604 that apply to the engine (if any), a statement that there were no deviations from the fuel requirements during the reporting period.

(ix) If there were deviations from the fuel requirements in [§ 63.6604](#) that apply to the engine (if any), information on the number, duration (in hours), and cause of deviations, and the corrective action taken.

(2) The first annual report must cover the calendar year 2015 and must be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year must be submitted no later than March 31 of the following calendar year.

(3) The annual report must be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the written report must be submitted to the Administrator at the appropriate address listed in §63.13.

(i) Beginning on February 26, 2025 for the annual report specified in [§ 63.6650\(h\)](#) and February 26, 2025 or one year after the report becomes available in CEDRI, whichever is later for all other semiannual or annual reports, submit all semiannual and annual subsequent compliance reports using the appropriate electronic report template on the CEDRI website (<https://www.epa.gov/electronic-reporting-air-emissions/cedri>) for this subpart and following the procedure specified in [§ 63.9\(k\)](#), except any CBI must be submitted according to the procedures in [§ 63.6645\(h\)](#). The date report templates become available will be listed on the CEDRI website. Unless the Administrator or delegated state agency or other authority has approved a different schedule for submission of reports, the report must be submitted by the deadline specified in this subpart, regardless of the method in which the report is submitted.

§63.6655 What records must I keep?

(a) If you must comply with the emission and operating limitations, you must keep the records described in paragraphs (a)(1) through (a)(5), (b)(1) through (b)(3) and (c) of this section.

(1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirement in §63.10(b)(2)(xiv).

(2) Records of the occurrence and duration (in hours) of each malfunction of operation (*i.e.*, process equipment) or the air pollution control and monitoring equipment.

(3) Records of performance tests and performance evaluations as required in §63.10(b)(2)(viii).

(4) Records of all required maintenance performed on the air pollution control and monitoring equipment.

(5) Records of actions taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

(b) For each CEMS or CPMS, you must keep the records listed in paragraphs (b)(1) through (3) of this section.

(1) Records described in §63.10(b)(2)(vi) through (xi).

(2) Previous (*i.e.*, superseded) versions of the performance evaluation plan as required in §63.8(d)(3).

(3) Requests for alternatives to the relative accuracy test for CEMS or CPMS as required in §63.8(f)(6)(i), if applicable.

(c) If you are operating a new or reconstructed stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, you must keep the records of your daily fuel usage monitors.

(d) You must keep the records required in Table 6 of this subpart to show continuous compliance with each emission or operating limitation that applies to you.

(e) You must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after-treatment control device (if any) according to your own maintenance plan if you own or operate any of the following stationary RICE;

(1) An existing stationary RICE with a site rating of less than 100 brake HP located at a major source of HAP emissions.

(2) An existing stationary emergency RICE.

(3) An existing stationary RICE located at an area source of HAP emissions subject to management practices as shown in Table 2d to this subpart.

(f) If you own or operate any of the stationary RICE in paragraphs (f)(1) through (2) of this section, you must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engine is used for the purpose specified in § 63.6640(f)(4)(ii), the owner or operator must keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes.

(1) An existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions that does not meet the standards applicable to non-emergency engines.

- (2) An existing emergency stationary RICE located at an area source of HAP emissions that does not meet the standards applicable to non-emergency engines.

§63.6660 In what form and how long must I keep my records?

- (a) Your records must be in a form suitable and readily available for expeditious review according to §63.10(b)(1).
- (b) As specified in §63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.
- (c) You must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1).

Other Requirements and Information

§63.6665 What parts of the General Provisions apply to me?

Table 8 to this subpart shows which parts of the General Provisions in §§63.1 through 63.15 apply to you. If you own or operate a new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions (except new or reconstructed 4SLB engines greater than or equal to 250 and less than or equal to 500 brake HP), a new or reconstructed stationary RICE located at an area source of HAP emissions, or any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with any of the requirements of the General Provisions specified in Table 8: An existing 2SLB stationary RICE, an existing 4SLB stationary RICE, an existing stationary RICE that combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, an existing emergency stationary RICE, or an existing limited use stationary RICE. If you own or operate any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in the General Provisions specified in Table 8 except for the initial notification requirements: A new stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, a new emergency stationary RICE, or a new limited use stationary RICE.

§63.6670 Who implements and enforces this subpart?

- (a) This subpart is implemented and enforced by the U.S. EPA, or a delegated authority such as your State, local, or tribal agency. If the U.S. EPA Administrator has delegated authority to your State, local, or tribal agency, then that agency (as well as the U.S. EPA) has the authority to implement and enforce this subpart. You should contact your U.S. EPA Regional Office to find out whether this subpart is delegated to your State, local, or tribal agency.
- (b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under 40 CFR part 63, subpart E, the authorities contained in paragraph (c) of this section are retained by the Administrator of the U.S. EPA and are not transferred to the State, local, or tribal agency.
- (c) The authorities that will not be delegated to State, local, or tribal agencies are:

- (1) Approval of alternatives to the non-opacity emission limitations and operating limitations in §63.6600 under §63.6(g).
- (2) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f) and as defined in §63.90.
- (3) Approval of major alternatives to monitoring under §63.8(f) and as defined in §63.90.
- (4) Approval of major alternatives to recordkeeping and reporting under §63.10(f) and as defined in §63.90.
- (5) Approval of a performance test which was conducted prior to the effective date of the rule, as specified in §63.6610(b).
- (6) Approval of an alternative to any electronic reporting to the EPA required by this subpart.

§63.6675 What definitions apply to this subpart?

Terms used in this subpart are defined in the Clean Air Act (CAA); in 40 CFR 63.2, the General Provisions of this part; and in this section as follows:

Alaska Railbelt Grid means the service areas of the six regulated public utilities that extend from Fairbanks to Anchorage and the Kenai Peninsula. These utilities are Golden Valley Electric Association; Chugach Electric Association; Matanuska Electric Association; Homer Electric Association; Anchorage Municipal Light & Power; and the City of Seward Electric System.

Area source means any stationary source of HAP that is not a major source as defined in part 63.

Associated equipment as used in this subpart and as referred to in section 112(n)(4) of the CAA, means equipment associated with an oil or natural gas exploration or production well, and includes all equipment from the well bore to the point of custody transfer, except glycol dehydration units, storage vessels with potential for flash emissions, combustion turbines, and stationary RICE.

Backup power for renewable energy means an engine that provides backup power to a facility that generates electricity from renewable energy resources, as that term is defined in Alaska Statute 42.45.045(l)(5) (incorporated by reference, see §63.14).

Black start engine means an engine whose only purpose is to start up a combustion turbine.

CAA means the Clean Air Act (42 U.S.C. 7401 *et seq.*, as amended by Public Law 101-549, 104 Stat. 2399).

Commercial emergency stationary RICE means an emergency stationary RICE used in commercial establishments such as office buildings, hotels, stores, telecommunications facilities, restaurants, financial institutions such as banks, doctor's offices, and sports and performing arts facilities.

Compression ignition means relating to a type of stationary internal combustion engine that is not a spark ignition engine.

Custody transfer means the transfer of hydrocarbon liquids or natural gas: After processing and/or treatment in the producing operations, or from storage vessels or automatic transfer facilities or other such equipment, including product loading racks, to pipelines or any other forms of transportation. For the purposes of this subpart, the point at which such liquids or natural gas enters a natural gas processing plant is a point of custody transfer.

Deviation means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

- (1) Fails to meet any requirement or obligation established by this subpart, including but not limited to any emission limitation or operating limitation;
- (2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or
- (3) Fails to meet any emission limitation or operating limitation in this subpart during malfunction, regardless of whether or not such failure is permitted by this subpart.
- (4) Fails to satisfy the general duty to minimize emissions established by §63.6(e)(1)(i).

Diesel engine means any stationary RICE in which a high boiling point liquid fuel injected into the combustion chamber ignites when the air charge has been compressed to a temperature sufficiently high for auto-ignition. This process is also known as compression ignition.

Diesel fuel means any liquid obtained from the distillation of petroleum with a boiling point of approximately 150 to 360 degrees Celsius. One commonly used form is fuel oil number 2. Diesel fuel also includes any non-distillate fuel with comparable physical and chemical properties (*e.g.* biodiesel) that is suitable for use in compression ignition engines.

Digester gas means any gaseous by-product of wastewater treatment typically formed through the anaerobic decomposition of organic waste materials and composed principally of methane and CO₂.

Dual-fuel engine means any stationary RICE in which a liquid fuel (typically diesel fuel) is used for compression ignition and gaseous fuel (typically natural gas) is used as the primary fuel.

Emergency stationary RICE means any stationary reciprocating internal combustion engine that meets all of the criteria in paragraphs (1) through (3) of this definition. All emergency stationary RICE must comply with the requirements specified in § 63.6640(f) in order to be considered emergency stationary RICE. If the engine does not comply with the requirements specified in § 63.6640(f), then it is not considered to be an emergency stationary RICE under this subpart.

- (1) The stationary RICE is operated to provide electrical power or mechanical work during an emergency situation. Examples include stationary RICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary RICE used to pump water in the case of fire or flood, etc.
- (2) The stationary RICE is operated under limited circumstances for situations not included in paragraph (1) of this definition, as specified in §63.6640(f).
- (3) The stationary RICE operates as part of a financial arrangement with another entity in situations not included in paragraph (1) of this definition only as allowed in § 63.6640(f)(4)(i) or (ii).

Engine startup means the time from initial start until applied load and engine and associated equipment reaches steady state or normal operation. For stationary engine with catalytic controls, engine startup

means the time from initial start until applied load and engine and associated equipment, including the catalyst, reaches steady state or normal operation.

Four-stroke engine means any type of engine which completes the power cycle in two crankshaft revolutions, with intake and compression strokes in the first revolution and power and exhaust strokes in the second revolution.

Gaseous fuel means a material used for combustion which is in the gaseous state at standard atmospheric temperature and pressure conditions.

Gasoline means any fuel sold in any State for use in motor vehicles and motor vehicle engines, or nonroad or stationary engines, and commonly or commercially known or sold as gasoline.

Glycol dehydration unit means a device in which a liquid glycol (including, but not limited to, ethylene glycol, diethylene glycol, or triethylene glycol) absorbent directly contacts a natural gas stream and absorbs water in a contact tower or absorption column (absorber). The glycol contacts and absorbs water vapor and other gas stream constituents from the natural gas and becomes "rich" glycol. This glycol is then regenerated in the glycol dehydration unit reboiler. The "lean" glycol is then recycled.

Hazardous air pollutants (HAP) means any air pollutants listed in or pursuant to section 112(b) of the CAA.

Institutional emergency stationary RICE means an emergency stationary RICE used in institutional establishments such as medical centers, nursing homes, research centers, institutions of higher education, correctional facilities, elementary and secondary schools, libraries, religious establishments, police stations, and fire stations.

ISO standard day conditions means 288 degrees Kelvin (15 degrees Celsius), 60 percent relative humidity and 101.3 kilopascals pressure.

Landfill gas means a gaseous by-product of the land application of municipal refuse typically formed through the anaerobic decomposition of waste materials and composed principally of methane and CO₂.

Lean burn engine means any two-stroke or four-stroke spark ignited engine that does not meet the definition of a rich burn engine.

Limited use stationary RICE means any stationary RICE that operates less than 100 hours per year.

Liquefied petroleum gas means any liquefied hydrocarbon gas obtained as a by-product in petroleum refining of natural gas production.

Liquid fuel means any fuel in liquid form at standard temperature and pressure, including but not limited to diesel, residual/crude oil, kerosene/naphtha (jet fuel), and gasoline.

Major Source, as used in this subpart, shall have the same meaning as in §63.2, except that:

- (1) Emissions from any oil or gas exploration or production well (with its associated equipment (as defined in this section)) and emissions from any pipeline compressor station or pump station shall not be aggregated with emissions from other similar units, to determine whether such emission points or stations are major sources, even when emission points are in a contiguous area or under common control;

(2) For oil and gas production facilities, emissions from processes, operations, or equipment that are not part of the same oil and gas production facility, as defined in §63.1271 of subpart HHH of this part, shall not be aggregated;

(3) For production field facilities, only HAP emissions from glycol dehydration units, storage vessel with the potential for flash emissions, combustion turbines and reciprocating internal combustion engines shall be aggregated for a major source determination; and

(4) Emissions from processes, operations, and equipment that are not part of the same natural gas transmission and storage facility, as defined in §63.1271 of subpart HHH of this part, shall not be aggregated.

Malfunction means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner which causes, or has the potential to cause, the emission limitations in an applicable standard to be exceeded. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

Natural gas means a naturally occurring mixture of hydrocarbon and non-hydrocarbon gases found in geologic formations beneath the Earth's surface, of which the principal constituent is methane. Natural gas may be field or pipeline quality.

Non-selective catalytic reduction (NSCR) means an add-on catalytic nitrogen oxides (NO_x) control device for rich burn engines that, in a two-step reaction, promotes the conversion of excess oxygen, NO_x, CO, and volatile organic compounds (VOC) into CO₂, nitrogen, and water.

Oil and gas production facility as used in this subpart means any grouping of equipment where hydrocarbon liquids are processed, upgraded (*i.e.*, remove impurities or other constituents to meet contract specifications), or stored prior to the point of custody transfer; or where natural gas is processed, upgraded, or stored prior to entering the natural gas transmission and storage source category. For purposes of a major source determination, facility (including a building, structure, or installation) means oil and natural gas production and processing equipment that is located within the boundaries of an individual surface site as defined in this section. Equipment that is part of a facility will typically be located within close proximity to other equipment located at the same facility. Pieces of production equipment or groupings of equipment located on different oil and gas leases, mineral fee tracts, lease tracts, subsurface or surface unit areas, surface fee tracts, surface lease tracts, or separate surface sites, whether or not connected by a road, waterway, power line or pipeline, shall not be considered part of the same facility. Examples of facilities in the oil and natural gas production source category include, but are not limited to, well sites, satellite tank batteries, central tank batteries, a compressor station that transports natural gas to a natural gas processing plant, and natural gas processing plants.

Oxidation catalyst means an add-on catalytic control device that controls CO and VOC by oxidation.

Peaking unit or engine means any standby engine intended for use during periods of high demand that are not emergencies.

Percent load means the fractional power of an engine compared to its maximum manufacturer's design capacity at engine site conditions. Percent load may range between 0 percent to above 100 percent.

Potential to emit means the maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the stationary source to

emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is federally enforceable. For oil and natural gas production facilities subject to subpart HH of this part, the potential to emit provisions in §63.760(a) may be used. For natural gas transmission and storage facilities subject to subpart HHH of this part, the maximum annual facility gas throughput for storage facilities may be determined according to §63.1270(a)(1) and the maximum annual throughput for transmission facilities may be determined according to §63.1270(a)(2).

Production field facility means those oil and gas production facilities located prior to the point of custody transfer.

Production well means any hole drilled in the earth from which crude oil, condensate, or field natural gas is extracted.

Propane means a colorless gas derived from petroleum and natural gas, with the molecular structure C_3H_8 .

Remote stationary RICE means stationary RICE meeting any of the following criteria:

- (1) Stationary RICE located in an offshore area that is beyond the line of ordinary low water along that portion of the coast of the United States that is in direct contact with the open seas and beyond the line marking the seaward limit of inland waters.
- (2) Stationary RICE located on a pipeline segment that meets both of the criteria in paragraphs (2)(i) and (ii) of this definition.
 - (i) A pipeline segment with 10 or fewer buildings intended for human occupancy and no buildings with four or more stories within 220 yards (200 meters) on either side of the centerline of any continuous 1-mile (1.6 kilometers) length of pipeline. Each separate dwelling unit in a multiple dwelling unit building is counted as a separate building intended for human occupancy.
 - (ii) The pipeline segment does not lie within 100 yards (91 meters) of either a building or a small, well-defined outside area (such as a playground, recreation area, outdoor theater, or other place of public assembly) that is occupied by 20 or more persons on at least 5 days a week for 10 weeks in any 12-month period. The days and weeks need not be consecutive. The building or area is considered occupied for a full day if it is occupied for any portion of the day.
 - (iii) For purposes of this paragraph (2), the term pipeline segment means all parts of those physical facilities through which gas moves in transportation, including but not limited to pipe, valves, and other appurtenance attached to pipe, compressor units, metering stations, regulator stations, delivery stations, holders, and fabricated assemblies. Stationary RICE located within 50 yards (46 meters) of the pipeline segment providing power for equipment on a pipeline segment are part of the pipeline segment. Transportation of gas means the gathering, transmission, or distribution of gas by pipeline, or the storage of gas. A building is intended for human occupancy if its primary use is for a purpose involving the presence of humans.
- (3) Stationary RICE that are not located on gas pipelines and that have 5 or fewer buildings intended for human occupancy and no buildings with four or more stories within a 0.25 mile radius around the

engine. A building is intended for human occupancy if its primary use is for a purpose involving the presence of humans.

Residential emergency stationary RICE means an emergency stationary RICE used in residential establishments such as homes or apartment buildings.

Responsible official means responsible official as defined in 40 CFR 70.2.

Rich burn engine means any four-stroke spark ignited engine where the manufacturer's recommended operating air/fuel ratio divided by the stoichiometric air/fuel ratio at full load conditions is less than or equal to 1.1. Engines originally manufactured as rich burn engines, but modified prior to December 19, 2002 with passive emission control technology for NO_x (such as pre-combustion chambers) will be considered lean burn engines. Also, existing engines where there are no manufacturer's recommendations regarding air/fuel ratio will be considered a rich burn engine if the excess oxygen content of the exhaust at full load conditions is less than or equal to 2 percent.

Site-rated HP means the maximum manufacturer's design capacity at engine site conditions.

Spark ignition means relating to either: A gasoline-fueled engine; or any other type of engine with a spark plug (or other sparking device) and with operating characteristics significantly similar to theoretical Otto combustion cycle. Spark ignition engines usually use a throttle to regulate intake air flow to control power during normal operation. Dual-fuel engines in which a liquid fuel (typically diesel fuel) is used for CI and gaseous fuel (typically natural gas) is used as the primary fuel at an annual average ratio of less than 2 parts diesel fuel to 100 parts total fuel on an energy equivalent basis are spark ignition engines.

Stationary reciprocating internal combustion engine (RICE) means any reciprocating internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work and which is not mobile. Stationary RICE differ from mobile RICE in that a stationary RICE is not a non-road engine as defined at 40 CFR 1068.30, and is not used to propel a motor vehicle or a vehicle used solely for competition.

Stationary RICE test cell/stand means an engine test cell/stand, as defined in subpart P of this part, that tests stationary RICE.

Stoichiometric means theoretical air-to-fuel ratio required for complete combustion.

Storage vessel with the potential for flash emissions means any storage vessel that contains a hydrocarbon liquid with a stock tank gas-to-oil ratio equal to or greater than 0.31 cubic meters per liter and an American Petroleum Institute gravity equal to or greater than 40 degrees and an actual annual average hydrocarbon liquid throughput equal to or greater than 79,500 liters per day. Flash emissions occur when dissolved hydrocarbons in the fluid evolve from solution when the fluid pressure is reduced.

Subpart means 40 CFR part 63, subpart ZZZZ.

Surface site means any combination of one or more graded pad sites, gravel pad sites, foundations, platforms, or the immediate physical location upon which equipment is physically affixed.

Two-stroke engine means a type of engine which completes the power cycle in single crankshaft revolution by combining the intake and compression operations into one stroke and the power and exhaust operations into a second stroke. This system requires auxiliary scavenging and inherently runs lean of stoichiometric.

Table 1a to Subpart ZZZZ of Part 63—Emission Limitations for Existing, New, and Reconstructed Spark Ignition, 4SRB Stationary RICE >500 HP Located at a Major Source of HAP Emissions

As stated in §§63.6600 and 63.6640, you must comply with the following emission limitations at 100 percent load plus or minus 10 percent for existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions:

For each . . .	You must meet the following emission limitation, except during periods of startup . . .	During periods of startup you must . . .
1. 4SRB stationary RICE	a. Reduce formaldehyde emissions by 76 percent or more. If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004, you may reduce formaldehyde emissions by 75 percent or more until June 15, 2007 or	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. ¹
	b. Limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent O ₂	

¹ Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.

Table 1b to Subpart ZZZZ of Part 63—Operating Limitations for Existing, New, and Reconstructed SI 4SRB Stationary RICE >500 HP Located at a Major Source of HAP Emissions

As stated in §§63.6600, 63.6603, 63.6630 and 63.6640, you must comply with the following operating limitations for existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions:

For each . . .	You must meet the following operating limitation, except during periods of startup . . .
1. existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions complying with the requirement to reduce formaldehyde emissions by 76 percent or more (or by 75 percent or more, if applicable) and using NSCR; or existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent O ₂ and using NSCR;	a. maintain your catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water at 100 percent load plus or minus 10 percent from the pressure drop across the catalyst measured during the initial performance test; and b. maintain the temperature of your stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 750 °F and less than or equal to 1250 °F. ¹
2. existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions complying with the requirement to reduce formaldehyde emissions by 76 percent or more (or by 75 percent or more, if applicable) and not using NSCR; or	Comply with any operating limitations approved by the Administrator.
existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions complying with the requirement to limit the concentration of formaldehyde in the	

For each . . .	You must meet the following operating limitation, except during periods of startup . . .
stationary RICE exhaust to 350 ppbvd or less at 15 percent O ₂ and not using NSCR.	

¹Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.8(f) for a different temperature range.

Table 2a to Subpart ZZZZ of Part 63—Emission Limitations for New and Reconstructed 2SLB and Compression Ignition Stationary RICE >500 HP and New and Reconstructed 4SLB Stationary RICE ≥250 HP Located at a Major Source of HAP Emissions

As stated in §§63.6600 and 63.6640, you must comply with the following emission limitations for new and reconstructed lean burn and new and reconstructed compression ignition stationary RICE at 100 percent load plus or minus 10 percent:

For each . . .	You must meet the following emission limitation, except during periods of startup . . .	During periods of startup you must . . .
1. 2SLB stationary RICE	a. Reduce CO emissions by 58 percent or more; or b. Limit concentration of formaldehyde in the stationary RICE exhaust to 12 ppmvd or less at 15 percent O ₂ . If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004, you may limit concentration of formaldehyde to 17 ppmvd or less at 15 percent O ₂ until June 15, 2007	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. ¹
2. 4SLB stationary RICE	a. Reduce CO emissions by 93 percent or more; or	
	b. Limit concentration of formaldehyde in the stationary RICE exhaust to 14 ppmvd or less at 15 percent O ₂	
3. CI stationary RICE	a. Reduce CO emissions by 70 percent or more; or	
	b. Limit concentration of formaldehyde in the stationary RICE exhaust to 580 ppbvd or less at 15 percent O ₂	

¹Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.

Table 2b to Subpart ZZZZ of Part 63—Operating Limitations for New and Reconstructed 2SLB and CI Stationary RICE >500 HP Located at a Major Source of HAP Emissions, New and Reconstructed 4SLB Stationary RICE ≥250 HP Located at a Major Source of HAP Emissions, Existing CI Stationary RICE >500 HP

As stated in §§63.6600, 63.6601, 63.6603, 63.6630, and 63.6640, you must comply with the following operating limitations for new and reconstructed 2SLB and CI stationary RICE >500 HP located at a major source of HAP emissions; new and reconstructed 4SLB stationary RICE ≥250 HP located at a major source of HAP emissions; and existing CI stationary RICE >500 HP:

For each . . .	You must meet the following operating limitation, except during periods of startup . . .
1. New and reconstructed 2SLB and CI stationary RICE >500 HP located at a major source of HAP emissions and new and reconstructed 4SLB stationary RICE ≥250 HP located at a major source of HAP emissions complying with the requirement to reduce CO emissions and using an oxidation catalyst; and New and reconstructed 2SLB and CI stationary RICE >500 HP located at a major source of HAP emissions and new and reconstructed 4SLB stationary RICE ≥250 HP located at a major source of HAP emissions complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust and using an oxidation catalyst.	a. maintain your catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water at 100 percent load plus or minus 10 percent from the pressure drop across the catalyst that was measured during the initial performance test; and b. maintain the temperature of your stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 450 °F and less than or equal to 1350 °F. ¹
2. Existing CI stationary RICE >500 HP complying with the requirement to limit or reduce the concentration of CO in the stationary RICE exhaust and using an oxidation catalyst	a. maintain your catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water from the pressure drop across the catalyst that was measured during the initial performance test; and
	b. maintain the temperature of your stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 450 °F and less than or equal to 1350 °F. ¹
3. New and reconstructed 2SLB and CI stationary RICE >500 HP located at a major source of HAP emissions and new and reconstructed 4SLB stationary RICE ≥250 HP located at a major source of HAP emissions complying with the requirement to reduce CO emissions and not using an oxidation catalyst; and	Comply with any operating limitations approved by the Administrator.
New and reconstructed 2SLB and CI stationary RICE >500 HP located at a major source of HAP emissions and new and reconstructed 4SLB stationary RICE ≥250 HP located at a major source of HAP emissions complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust and not using an oxidation catalyst; and	
existing CI stationary RICE >500 HP complying with the requirement to limit or reduce the concentration of CO in the stationary RICE exhaust and not using an oxidation catalyst.	

¹Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.8(f) for a different temperature range.

Table 2c to Subpart ZZZZ of Part 63—Requirements for Existing Compression Ignition Stationary RICE Located at a Major Source of HAP Emissions and Existing Spark Ignition Stationary RICE ≤500 HP Located at a Major Source of HAP Emissions

As stated in §§ 63.6600, 63.6602, and 63.6640, you must comply with the following requirements for existing compression ignition stationary RICE located at a major source of HAP emissions and existing spark ignition stationary RICE ≤500 HP located at a major source of HAP emissions

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
1. Emergency stationary CI RICE and black start stationary CI RICE ¹	a. Change oil and filter every 500 hours of operation or within 1 year + 30 days of the previous change, whichever comes first ² . b. Inspect air cleaner every 1,000 hours of operation or within 1 year + 30 days of the previous inspection, whichever comes first, and replace as necessary;	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. ³
	c. Inspect all hoses and belts every 500 hours of operation or within 1 year + 30 days of the previous inspection, whichever comes first, and replace as necessary ³	
2. Non-Emergency, non-black start stationary CI RICE <100 HP	a. Change oil and filter every 1,000 hours of operation or within 1 year + 30 days of the previous change, whichever comes first ² .	
	b. Inspect air cleaner every 1,000 hours of operation or within 1 year + 30 days of the previous inspection, whichever comes first, and replace as necessary;	
	c. Inspect all hoses and belts every 500 hours of operation or within 1 year + 30 days of the previous inspection, whichever comes first, and replace as necessary ³	
3. Non-Emergency, non-black start CI stationary RICE 100≤HP≤300 HP	Limit concentration of CO in the stationary RICE exhaust to 230 ppmvd or less at 15 percent O ₂	
4. Non-Emergency, non-black start CI stationary RICE 300<HP≤500	a. Limit concentration of CO in the stationary RICE exhaust to 49 ppmvd or less at 15 percent O ₂ ; or	
	b. Reduce CO emissions by 70 percent or more	
5. Non-Emergency, non-black start stationary CI RICE >500 HP	a. Limit concentration of CO in the stationary RICE exhaust to 23 ppmvd or less at 15 percent O ₂ ; or	
	b. Reduce CO emissions by 70 percent or more	

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
6. Emergency stationary SI RICE and black start stationary SI RICE. ¹	a. Change oil and filter every 500 hours of operation or within 1 year + 30 days of the previous change, whichever comes first; ²	
	b. Inspect spark plugs every 1,000 hours of operation or within 1 year + 30 days of the previous inspection, whichever comes first, and replace as necessary;	
	c. Inspect all hoses and belts every 500 hours of operation or within 1 year + 30 days of the previous inspection, whichever comes first, and replace as necessary ³	
7. Non-Emergency, non-black start stationary SI RICE <100 HP that are not 2SLB stationary RICE	a. Change oil and filter every 1,440 hours of operation or within 1 year + 30 days of the previous change, whichever comes first; ²	
	b. Inspect spark plugs every 1,440 hours of operation or within 1 year + 30 days of the previous inspection, whichever comes first, and replace as necessary	
	c. Inspect all hoses and belts every 1,440 hours of operation or within 1 year + 30 days of the previous inspection, whichever comes first, and replace as necessary ³	
8. Non-Emergency, non-black start 2SLB stationary SI RICE <100 HP	a. Change oil and filter every 4,320 hours of operation or within 1 year + 30 days of the previous change, whichever comes first; ²	
	b. Inspect spark plugs every 4,320 hours of operation or within 1 year + 30 days of the previous inspection, whichever comes first, and replace as necessary;	
	c. Inspect all hoses and belts every 4,320 hours of operation or within 1 year + 30 days of the previous inspection, whichever comes first, and replace as necessary ³	

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
9. Non-emergency, non-black start 2SLB stationary RICE 100≤HP≤500	Limit concentration of CO in the stationary RICE exhaust to 225 ppmvd or less at 15 percent O ₂	
10. Non-emergency, non-black start 4SLB stationary RICE 100≤HP≤500	Limit concentration of CO in the stationary RICE exhaust to 47 ppmvd or less at 15 percent O ₂	
11. Non-emergency, non-black start 4SRB stationary RICE 100≤HP≤500	Limit concentration of formaldehyde in the stationary RICE exhaust to 10.3 ppmvd or less at 15 percent O ₂	
12. Non-emergency, non-black start stationary RICE 100≤HP≤500 which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis	Limit concentration of CO in the stationary RICE exhaust to 177 ppmvd or less at 15 percent O ₂	
¹ If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the work practice requirements on the schedule required in table 2c of this subpart, or if performing the work practice on the required schedule would otherwise pose an unacceptable risk under Federal, state, or local law, the work practice can be delayed until the emergency is over or the unacceptable risk under Federal, state, or local law has abated. The work practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, state, or local law has abated. Sources must report any failure to perform the work practice on the schedule required and the Federal, state or local law under which the risk was deemed unacceptable.		
² Sources have the option to utilize an oil analysis program as described in § 63.6625(i) or (j) in order to extend the specified oil change requirement in table 2c of this subpart.		
³ Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.		

Table 2d to Subpart ZZZZ of Part 63—Requirements for Existing Stationary RICE Located at Area Sources of HAP Emissions

As stated in §§ 63.6603 and 63.6640, you must comply with the following requirements for existing stationary RICE located at area sources of HAP emissions:

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
1. Non-Emergency, non-black start CI stationary RICE ≤300 HP	a. Change oil and filter every 1,000 hours of operation or within 1 year + 30 days of the previous change, whichever comes first; ¹ b. Inspect air cleaner every 1,000 hours of operation or within 1 year + 30 days of the previous inspection, whichever comes first,	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
	and replace as necessary;	
	c. Inspect all hoses and belts every 500 hours of operation or within 1 year + 30 days of the previous inspection, whichever comes first, and replace as necessary	
2. Non-Emergency, non-black start CI stationary RICE 300<HP≤500	a. Limit concentration of CO in the stationary RICE exhaust to 49 ppmvd at 15 percent O ₂ ; or	
	b. Reduce CO emissions by 70 percent or more	
3. Non-Emergency, non-black start CI stationary RICE >500 HP	a. Limit concentration of CO in the stationary RICE exhaust to 23 ppmvd at 15 percent O ₂ ; or	
	b. Reduce CO emissions by 70 percent or more	
4. Emergency stationary CI RICE and black start stationary CI RICE. ²	a. Change oil and filter every 500 hours of operation or within 1 year + 30 days of the previous change, whichever comes first; ¹	
	b. Inspect air cleaner every 1,000 hours of operation or within 1 year + 30 days of the previous inspection, whichever comes first, and replace as necessary; and	
	c. Inspect all hoses and belts every 500 hours of operation or within 1 year + 30 days of the previous inspection, whichever comes first, and replace as necessary	
5. Emergency stationary SI RICE; black start stationary SI RICE; non-emergency, non-black start 4SLB stationary RICE >500 HP that operate 24 hours or less per calendar year; non-emergency, non-black start 4SRB stationary RICE >500 HP that operate 24 hours or less per calendar year. ²	a. Change oil and filter every 500 hours of operation or within 1 year + 30 days of the previous change, whichever comes first; ¹ b. Inspect spark plugs every 1,000 hours of operation or within 1 year + 30 days of the previous inspection, whichever comes first, and replace as necessary; and	
	c. Inspect all hoses and belts every 500 hours of operation or within 1	

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
	year + 30 days of the previous inspection, whichever comes first, and replace as necessary	
6. Non-emergency, non-black start 2SLB stationary RICE	a. Change oil and filter every 4,320 hours of operation or within 1 year + 30 days of the previous change, whichever comes first; ¹	
	b. Inspect spark plugs every 4,320 hours of operation or within 1 year + 30 days of the previous inspection, whichever comes first, and replace as necessary; and	
	c. Inspect all hoses and belts every 4,320 hours of operation or within 1 year + 30 days of the previous inspection, whichever comes first, and replace as necessary	
7. Non-emergency, non-black start 4SLB stationary RICE ≤500 HP	a. Change oil and filter every 1,440 hours of operation or within 1 year + 30 days of the previous change, whichever comes first; ¹	
	b. Inspect spark plugs every 1,440 hours of operation or within 1 year + 30 days of the previous inspection, whichever comes first, and replace as necessary; and	
	c. Inspect all hoses and belts every 1,440 hours of operation or within 1 year + 30 days of the previous inspection, whichever comes first, and replace as necessary	
8. Non-emergency, non-black start 4SLB remote stationary RICE >500 HP	a. Change oil and filter every 2,160 hours of operation or within 1 year + 30 days of the previous change, whichever comes first; ¹	
	b. Inspect spark plugs every 2,160 hours of operation or within 1 year + 30 days of the previous inspection, whichever comes first, and replace as necessary; and	
	c. Inspect all hoses and belts every 2,160 hours of operation or within	

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
	1 year + 30 days of the previous inspection, whichever comes first, and replace as necessary	
9. Non-emergency, non-black start 4SLB stationary RICE >500 HP that are not remote stationary RICE and that operate more than 24 hours per calendar year	Install an oxidation catalyst to reduce HAP emissions from the stationary RICE	
10. Non-emergency, non-black start 4SRB stationary RICE ≤500 HP	a. Change oil and filter every 1,440 hours of operation or within 1 year + 30 days of the previous change, whichever comes first; ¹	
	b. Inspect spark plugs every 1,440 hours of operation or within 1 year + 30 days of the previous inspection, whichever comes first, and replace as necessary; and	
	c. Inspect all hoses and belts every 1,440 hours of operation or within 1 year + 30 days of the previous inspection, whichever comes first, and replace as necessary	
11. Non-emergency, non-black start 4SRB remote stationary RICE >500 HP	a. Change oil and filter every 2,160 hours of operation or within 1 year + 30 days of the previous change, whichever comes first; ¹	
	b. Inspect spark plugs every 2,160 hours of operation or within 1 year + 30 days of the previous inspection, whichever comes first, and replace as necessary; and	
	c. Inspect all hoses and belts every 2,160 hours of operation or within 1 year + 30 days of the previous inspection, whichever comes first, and replace as necessary	
12. Non-emergency, non-black start 4SRB stationary RICE >500 HP that are not remote stationary RICE and that operate more than 24 hours per calendar year	Install NSCR to reduce HAP emissions from the stationary RICE	
13. Non-emergency, non-black start stationary RICE which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat	a. Change oil and filter every 1,440 hours of operation or within 1 year + 30 days of the previous change,	

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
input on an annual basis	whichever comes first; ¹ b. Inspect spark plugs every 1,440 hours of operation or within 1 year + 30 days of the previous inspection, whichever comes first, and replace as necessary; and	
	c. Inspect all hoses and belts every 1,440 hours of operation or within 1 year + 30 days of the previous inspection, whichever comes first, and replace as necessary	
¹ Sources have the option to utilize an oil analysis program as described in § 63.6625(i) or (j) in order to extend the specified oil change requirement in table 2d of this subpart.		
² If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule required in table 2d of this subpart, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under Federal, state, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under Federal, state, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, state, or local law has abated. Sources must report any failure to perform the management practice on the schedule required and the Federal, state or local law under which the risk was deemed unacceptable.		

Table 3 to Subpart ZZZZ of Part 63—Subsequent Performance Tests

As stated in §§63.6615 and 63.6620, you must comply with the following subsequent performance test requirements:

For each . . .	Complying with the requirement to . . .	You must . . .
1. New or reconstructed 2SLB stationary RICE >500 HP located at major sources; new or reconstructed 4SLB stationary RICE ≥250 HP located at major sources; and new or reconstructed CI stationary RICE >500 HP located at major sources	Reduce CO emissions and not using a CEMS	Conduct subsequent performance tests semiannually. ¹
2. 4SRB stationary RICE ≥5,000 HP located at major sources	Reduce formaldehyde emissions	Conduct subsequent performance tests semiannually. ¹
3. Stationary RICE >500 HP located at major sources and new or reconstructed 4SLB stationary RICE 250≤HP≤500 located at major sources	Limit the concentration of formaldehyde in the stationary RICE exhaust	Conduct subsequent performance tests semiannually. ¹
4. Existing non-emergency, non-black start CI stationary RICE >500 HP that are not limited use stationary RICE	Limit or reduce CO emissions and not using a CEMS	Conduct subsequent performance tests every 8,760 hours or 3 years, whichever comes first.

For each . . .	Complying with the requirement to . . .	You must . . .
5. Existing non-emergency, non-black start CI stationary RICE >500 HP that are limited use stationary RICE	Limit or reduce CO emissions and not using a CEMS	Conduct subsequent performance tests every 8,760 hours or 5 years, whichever comes first.

¹After you have demonstrated compliance for two consecutive tests, you may reduce the frequency of subsequent performance tests to annually. If the results of any subsequent annual performance test indicate the stationary RICE is not in compliance with the CO or formaldehyde emission limitation, or you deviate from any of your operating limitations, you must resume semiannual performance tests.

Table 4 to Subpart ZZZZ of Part 63—Requirements for Performance Tests

As stated in §§ 63.6610, 63.6611, 63.6620, and 63.6640, you must comply with the following requirements for performance tests for stationary RICE:

For each . . .	Complying with the requirement to . . .	You must . . .	Using . . .	According to the following requirements . . .
1. 2SLB, 4SLB, and CI stationary RICE	a. Reduce CO emissions	i. Select the sampling port location and the number/location of traverse points at the inlet and outlet of the control device; and		(a) For CO, O ₂ , and moisture measurement, ducts ≤6 inches in diameter may be sampled at a single point located at the duct centroid and ducts >6 and ≤12 inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3% of the measurement line ('3-point long line'). If the duct is >12 inches in diameter <i>and</i> the sampling port location meets the two and half-diameter criterion of section 11.1.1 of method 1 of 40 CFR part 60, appendix A–1, the duct may be sampled at '3-point long line'; otherwise, conduct the stratification testing and select sampling points according to section 8.1.2 of method 7E of 40 CFR part 60, appendix A–4.
		ii. Measure the O ₂ at the inlet and outlet of the control device; and	(1) Method 3 or 3A or 3B of 40 CFR part 60, appendix A–2, or ASTM D6522–00 (Reapproved 2005) ¹³ (heated probe not necessary)	(b) Measurements to determine O ₂ must be made at the same time as the measurements for CO concentration.
		iii. Measure the CO at the inlet and the outlet of the control device; and	(2) ASTM D6522–00 (Reapproved 2005) ¹²³ (heated probe not necessary) or method 10 of 40 CFR part 60, appendix A–4	(c) The CO concentration must be at 15 percent O ₂ , dry basis.
		iv. Measure moisture content at the inlet and outlet of the control device	(3) Method 4 of 40 CFR part 60, appendix A–3, or method 320 of 40 CFR part	(d) Measurements to determine moisture content must be made at the same time and location as the measurements for CO

For each . . .	Complying with the requirement to . . .	You must . . .	Using . . .	According to the following requirements . . .
		as needed to determine CO and O ₂ concentrations on a dry basis	63, appendix A, or ASTM D6348–03 ¹³	concentration.
2. 4SRB stationary RICE	a. Reduce formaldehyde or THC emissions	i. Select the sampling port location and the number/location of traverse points at the inlet and outlet of the control device; and ii. Measure O₂ at the inlet and outlet of the control device; and iii. Measure moisture content at the inlet and outlet of the control device as needed to determine formaldehyde or THC and O₂ concentrations on a dry basis; and iv. If demonstrating compliance with the formaldehyde percent reduction requirement, measure formaldehyde at the inlet and the outlet of the control device v. If demonstrating compliance with the THC percent reduction requirement, measure THC at the inlet and the outlet of the control device	(1) Method 3 or 3A or 3B of 40 CFR part 60, appendix A–2, or ASTM D6522–00 (Reapproved 2005)¹³ (heated probe not necessary) (2) Method 4 of 40 CFR part 60, appendix A–3, or method 320 of 40 CFR part 63, appendix A, or ASTM D6348–03¹³ (3) Method 320 or 323 of 40 CFR part 63, appendix A; or ASTM D6348–03,¹³ provided in ASTM D6348–03 Annex A5 (Analyte Spiking Technique), the percent R must be greater than or equal to 70 and less than or equal to 130 (4) (1) Method 25A, reported as propane, of 40 CFR part 60, appendix A–7	(a) For formaldehyde, THC, O₂, and moisture measurement, ducts ≤6 inches in diameter may be sampled at a single point located at the duct centroid and ducts >6 and ≤12 inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3% of the measurement line ('3-point long line'). If the duct is >12 inches in diameter <i>and</i> the sampling port location meets the two and half-diameter criterion of section 11.1.1 of method 1 of 40 CFR part 60, appendix A, the duct may be sampled at '3-point long line'; otherwise, conduct the stratification testing and select sampling points according to section 8.1.2 of method 7E of 40 CFR part 60, appendix A. (b) Measurements to determine O₂ concentration must be made at the same time as the measurements for formaldehyde or THC concentration. (c) Measurements to determine moisture content must be made at the same time and location as the measurements for formaldehyde or THC concentration. (d) Formaldehyde concentration must be at 15 percent O₂, dry basis. Results of this test consist of the average of the three 1-hour or longer runs. (e) THC concentration must be at 15 percent O₂, dry basis. Results of this test consist of the average of the three 1-hour or longer runs.

For each . . .	Complying with the requirement to . . .	You must . . .	Using . . .	According to the following requirements . . .
3. Stationary RICE	a. Limit the concentration of formaldehyde or CO in the stationary RICE exhaust	i. Select the sampling port location and the number/location of traverse points at the exhaust of the stationary RICE; and		(a) For formaldehyde, CO, O ₂ , and moisture measurement, ducts ≤6 inches in diameter may be sampled at a single point located at the duct centroid and ducts >6 and ≤12 inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3% of the measurement line ('3-point long line'). If the duct is >12 inches in diameter <i>and</i> the sampling port location meets the two and half-diameter criterion of section 11.1.1 of method 1 of 40 CFR part 60, appendix A, the duct may be sampled at '3-point long line'; otherwise, conduct the stratification testing and select sampling points according to section 8.1.2 of method 7E of 40 CFR part 60, appendix A. If using a control device, the sampling site must be located at the outlet of the control device.
		ii. Determine the O ₂ concentration of the stationary RICE exhaust at the sampling port location; and	(1) Method 3 or 3A or 3B of 40 CFR part 60, appendix A-2, or ASTM D6522-00 (Reapproved 2005) ¹³ (heated probe not necessary)	(b) Measurements to determine O ₂ concentration must be made at the same time and location as the measurements for formaldehyde or CO concentration.
		iii. Measure moisture content of the stationary RICE exhaust at the sampling port location as needed to determine formaldehyde or CO and O ₂ concentrations on a dry basis; and	(2) Method 4 of 40 CFR part 60, appendix A-3, or method 320 of 40 CFR part 63, appendix A, or ASTM D6348-03 ¹³	(c) Measurements to determine moisture content must be made at the same time and location as the measurements for formaldehyde or CO concentration.
		iv. Measure formaldehyde at the exhaust of the stationary RICE; or	(3) Method 320 or 323 of 40 CFR part 63, appendix A; or ASTM D6348-03, ¹³ provided in ASTM D6348-03 Annex A5 (Analyte Spiking Technique), the percent R must be greater than or equal to 70 and less than or equal to 130	(d) Formaldehyde concentration must be at 15 percent O ₂ , dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
		v. Measure CO at the exhaust of the stationary RICE	(4) Method 10 of 40 CFR part 60, appendix A-4, ASTM D6522-00 (2005), ¹³ method 320 of 40 CFR part 63, appendix A, or ASTM	(e) CO concentration must be at 15 percent O ₂ , dry basis. Results of this test consist of the average of the three 1-hour or longer runs.

For each . . .	Complying with the requirement to . . .	You must . . .	Using . . .	According to the following requirements . . .

D6348–03¹³

¹ You may also use methods 3A and 10 as options to ASTM–D6522–00 (2005).

² You may obtain a copy of ASTM–D6348–03 from at least one of the following addresses: American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428–2959, or University Microfilms International, 300 North Zeeb Road, Ann Arbor, MI 48106.

³ Incorporated by reference, see § 63.14.

Table 5 to Subpart ZZZZ of Part 63—Initial Compliance With Emission Limitations, Operating Limitations, and Other Requirements

As stated in §§63.6612, 63.6625 and 63.6630, you must initially comply with the emission and operating limitations as required by the following:

For each . . .	Complying with the requirement to . . .	You have demonstrated initial compliance if . . .
1. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, non-emergency stationary CI RICE >500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE >500 HP located at an area source of HAP	a. Reduce CO emissions and using oxidation catalyst, and using a CPMS	i. The average reduction of emissions of CO determined from the initial performance test achieves the required CO percent reduction; and ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b); and iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.
2. Non-emergency stationary CI RICE >500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE >500 HP located at an area source of HAP	a. Limit the concentration of CO, using oxidation catalyst, and using a CPMS	i. The average CO concentration determined from the initial performance test is less than or equal to the CO emission limitation; and ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b); and iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.
3. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, non-emergency stationary CI RICE >500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE >500 HP located at an area source of HAP	a. Reduce CO emissions and not using oxidation catalyst	i. The average reduction of emissions of CO determined from the initial performance test achieves the required CO percent reduction; and ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in §63.6625(b); and iii. You have recorded the approved operating parameters (if any) during the initial performance

For each . . .	Complying with the requirement to . . .	You have demonstrated initial compliance if . . .
		test.
4. Non-emergency stationary CI RICE >500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE >500 HP located at an area source of HAP	a. Limit the concentration of CO, and not using oxidation catalyst	i. The average CO concentration determined from the initial performance test is less than or equal to the CO emission limitation; and ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in §63.6625(b); and
		iii. You have recorded the approved operating parameters (if any) during the initial performance test.
5. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, non-emergency stationary CI RICE >500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE >500 HP located at an area source of HAP	a. Reduce CO emissions, and using a CEMS	i. You have installed a CEMS to continuously monitor CO and either O ₂ or CO ₂ at both the inlet and outlet of the oxidation catalyst according to the requirements in §63.6625(a); and ii. You have conducted a performance evaluation of your CEMS using PS 3 and 4A of 40 CFR part 60, appendix B; and
		iii. The average reduction of CO calculated using §63.6620 equals or exceeds the required percent reduction. The initial test comprises the first 4-hour period after successful validation of the CEMS. Compliance is based on the average percent reduction achieved during the 4-hour period.
6. Non-emergency stationary CI RICE >500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE >500 HP located at an area source of HAP	a. Limit the concentration of CO, and using a CEMS	i. You have installed a CEMS to continuously monitor CO and either O ₂ or CO ₂ at the outlet of the oxidation catalyst according to the requirements in §63.6625(a); and
		ii. You have conducted a performance evaluation of your CEMS using PS 3 and 4A of 40 CFR part 60, appendix B; and
		iii. The average concentration of CO calculated using §63.6620 is less than or equal to the CO emission limitation. The initial test comprises the first 4-hour period after successful validation of the CEMS. Compliance is based on the average concentration measured during the 4-hour period.
7. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP	a. Reduce formaldehyde emissions and using NSCR	i. The average reduction of emissions of formaldehyde determined from the initial performance test is equal to or greater than the

For each . . .	Complying with the requirement to . . .	You have demonstrated initial compliance if . . .
		required formaldehyde percent reduction, or the average reduction of emissions of THC determined from the initial performance test is equal to or greater than 30 percent; and
		ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b); and
		iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.
8. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP	a. Reduce formaldehyde emissions and not using NSCR	i. The average reduction of emissions of formaldehyde determined from the initial performance test is equal to or greater than the required formaldehyde percent reduction or the average reduction of emissions of THC determined from the initial performance test is equal to or greater than 30 percent; and
		ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in §63.6625(b); and
		iii. You have recorded the approved operating parameters (if any) during the initial performance test.
9. New or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE $250 \leq \text{HP} \leq 500$ located at a major source of HAP, and existing non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP	a. Limit the concentration of formaldehyde in the stationary RICE exhaust and using oxidation catalyst or NSCR	i. The average formaldehyde concentration, corrected to 15 percent O ₂ , dry basis, from the three test runs is less than or equal to the formaldehyde emission limitation; and
		ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b); and
		iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.
10. New or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE $250 \leq \text{HP} \leq 500$ located at a major source of HAP, and existing non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP	a. Limit the concentration of formaldehyde in the stationary RICE exhaust and not using oxidation catalyst or NSCR	i. The average formaldehyde concentration, corrected to 15 percent O ₂ , dry basis, from the three test runs is less than or equal to the formaldehyde emission limitation; and
		ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in §63.6625(b); and

For each . . .	Complying with the requirement to . . .	You have demonstrated initial compliance if . . .
		iii. You have recorded the approved operating parameters (if any) during the initial performance test.
11. Existing non-emergency stationary RICE $100 \leq \text{HP} \leq 500$ located at a major source of HAP, and existing non-emergency stationary CI RICE $300 < \text{HP} \leq 500$ located at an area source of HAP	a. Reduce CO emissions	i. The average reduction of emissions of CO or formaldehyde, as applicable determined from the initial performance test is equal to or greater than the required CO or formaldehyde, as applicable, percent reduction.
12. Existing non-emergency stationary RICE $100 \leq \text{HP} \leq 500$ located at a major source of HAP, and existing non-emergency stationary CI RICE $300 < \text{HP} \leq 500$ located at an area source of HAP	a. Limit the concentration of formaldehyde or CO in the stationary RICE exhaust	i. The average formaldehyde or CO concentration, as applicable, corrected to 15 percent O ₂ , dry basis, from the three test runs is less than or equal to the formaldehyde or CO emission limitation, as applicable.
13. Existing non-emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year	a. Install an oxidation catalyst	i. You have conducted an initial compliance demonstration as specified in §63.6630(e) to show that the average reduction of emissions of CO is 93 percent or more, or the average CO concentration is less than or equal to 47 ppmvd at 15 percent O ₂ ;
		ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b), or you have installed equipment to automatically shut down the engine if the catalyst inlet temperature exceeds 1350 °F.
14. Existing non-emergency 4SRB stationary RICE >500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year	a. Install NSCR	i. You have conducted an initial compliance demonstration as specified in §63.6630(e) to show that the average reduction of emissions of CO is 75 percent or more, the average CO concentration is less than or equal to 270 ppmvd at 15 percent O ₂ , or the average reduction of emissions of THC is 30 percent or more;
		ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b), or you have installed equipment to automatically shut down the engine if the catalyst inlet temperature exceeds 1250 °F.

Table 6 to Subpart ZZZZ of Part 63—Continuous Compliance With Emission Limitations, and Other Requirements

As stated in §63.6640, you must continuously comply with the emissions and operating limitations and work or management practices as required by the following:

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
1. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, and new or reconstructed non-emergency CI stationary RICE >500 HP located at a major source of HAP	a. Reduce CO emissions and using an oxidation catalyst, and using a CPMS	i. Conducting semiannual performance tests for CO to demonstrate that the required CO percent reduction is achieved ^a ; and ii. Collecting the catalyst inlet temperature data according to §63.6625(b); and iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and
		v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.
2. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, and new or reconstructed non-emergency CI stationary RICE >500 HP located at a major source of HAP	a. Reduce CO emissions and not using an oxidation catalyst, and using a CPMS	i. Conducting semiannual performance tests for CO to demonstrate that the required CO percent reduction is achieved ^a ; and ii. Collecting the approved operating parameter (if any) data according to §63.6625(b); and iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.
3. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, new or reconstructed non-emergency stationary CI RICE >500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE >500 HP	a. Reduce CO emissions or limit the concentration of CO in the stationary RICE exhaust, and using a CEMS	i. Collecting the monitoring data according to §63.6625(a), reducing the measurements to 1-hour averages, calculating the percent reduction or concentration of CO emissions according to §63.6620; and ii. Demonstrating that the catalyst achieves the required percent reduction of CO emissions over the 4-hour averaging period, or that the emission remain at or below the CO concentration limit; and
		iii. Conducting an annual RATA of your CEMS using PS 3 and 4A of 40 CFR part 60, appendix B, as well as daily and periodic data quality checks in accordance with 40 CFR part 60, appendix F, procedure 1.

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
4. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP	a. Reduce formaldehyde emissions and using NSCR	i. Collecting the catalyst inlet temperature data according to §63.6625(b); and
		ii. Reducing these data to 4-hour rolling averages; and
		iii. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and
		iv. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.
5. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP	a. Reduce formaldehyde emissions and not using NSCR	i. Collecting the approved operating parameter (if any) data according to §63.6625(b); and
		ii. Reducing these data to 4-hour rolling averages; and
		iii. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.
6. Non-emergency 4SRB stationary RICE with a brake HP ≥5,000 located at a major source of HAP	a. Reduce formaldehyde emissions	Conducting semiannual performance tests for formaldehyde to demonstrate that the required formaldehyde percent reduction is achieved, or to demonstrate that the average reduction of emissions of THC determined from the performance test is equal to or greater than 30 percent. ^a
7. New or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP and new or reconstructed non-emergency 4SLB stationary RICE 250≤HP≤500 located at a major source of HAP	a. Limit the concentration of formaldehyde in the stationary RICE exhaust and using oxidation catalyst or NSCR	i. Conducting semiannual performance tests for formaldehyde to demonstrate that your emissions remain at or below the formaldehyde concentration limit ^a ; and
		ii. Collecting the catalyst inlet temperature data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and
		v. Measuring the pressure drop across the catalyst once per month and demonstrating that

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
		the pressure drop across the catalyst is within the operating limitation established during the performance test.
8. New or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP and new or reconstructed non-emergency 4SLB stationary RICE 250≤HP≤500 located at a major source of HAP	a. Limit the concentration of formaldehyde in the stationary RICE exhaust and not using oxidation catalyst or NSCR	i. Conducting semiannual performance tests for formaldehyde to demonstrate that your emissions remain at or below the formaldehyde concentration limit ^a ; and ii. Collecting the approved operating parameter (if any) data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.
9. Existing emergency and black start stationary RICE ≤500 HP located at a major source of HAP, existing non-emergency stationary RICE <100 HP located at a major source of HAP, existing emergency and black start stationary RICE located at an area source of HAP, existing non-emergency stationary CI RICE ≤300 HP located at an area source of HAP, existing non-emergency 2SLB stationary RICE located at an area source of HAP, existing non-emergency stationary SI RICE located at an area source of HAP which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, existing non-emergency 4SLB and 4SRB stationary RICE ≤500 HP located at an area source of HAP, existing non-emergency 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that operate 24 hours or less per calendar year, and existing non-emergency 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that are remote stationary RICE	a. Work or Management practices	i. Operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or ii. Develop and follow your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.
10. Existing stationary CI RICE >500 HP that are not limited use stationary RICE	a. Reduce CO emissions, or limit the concentration of CO in the stationary RICE exhaust, and using oxidation catalyst	i. Conducting performance tests every 8,760 hours or 3 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit; and
		ii. Collecting the catalyst inlet temperature data according to §63.6625(b); and

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and
		v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.
11. Existing stationary CI RICE >500 HP that are not limited use stationary RICE	a. Reduce CO emissions, or limit the concentration of CO in the stationary RICE exhaust, and not using oxidation catalyst	i. Conducting performance tests every 8,760 hours or 3 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit; and
		ii. Collecting the approved operating parameter (if any) data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.
12. Existing limited use CI stationary RICE >500 HP	a. Reduce CO emissions or limit the concentration of CO in the stationary RICE exhaust, and using an oxidation catalyst	i. Conducting performance tests every 8,760 hours or 5 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit; and
		ii. Collecting the catalyst inlet temperature data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and
		v. Measuring the pressure drop across the catalyst once per month and demonstrating that

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
		the pressure drop across the catalyst is within the operating limitation established during the performance test.
13. Existing limited use CI stationary RICE >500 HP	a. Reduce CO emissions or limit the concentration of CO in the stationary RICE exhaust, and not using an oxidation catalyst	i. Conducting performance tests every 8,760 hours or 5 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit; and
		ii. Collecting the approved operating parameter (if any) data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.
14. Existing non-emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year	a. Install an oxidation catalyst	i. Conducting annual compliance demonstrations as specified in §63.6640(c) to show that the average reduction of emissions of CO is 93 percent or more, or the average CO concentration is less than or equal to 47 ppmvd at 15 percent O ₂ ; and either ii. Collecting the catalyst inlet temperature data according to §63.6625(b), reducing these data to 4-hour rolling averages; and maintaining the 4-hour rolling averages within the limitation of greater than 450 °F and less than or equal to 1350 °F for the catalyst inlet temperature; or iii. Immediately shutting down the engine if the catalyst inlet temperature exceeds 1350 °F.
15. Existing non-emergency 4SRB stationary RICE >500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year	a. Install NSCR	i. Conducting annual compliance demonstrations as specified in §63.6640(c) to show that the average reduction of emissions of CO is 75 percent or more, the average CO concentration is less than or equal to 270 ppmvd at 15 percent O ₂ , or the average reduction of emissions of THC is 30 percent or more; and either ii. Collecting the catalyst inlet temperature data according to §63.6625(b), reducing these data to 4-hour rolling averages; and maintaining the 4-hour rolling averages within the limitation of greater than or equal to 750 °F and less than or equal to 1250 °F for the catalyst inlet

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
		temperature; or iii. Immediately shutting down the engine if the catalyst inlet temperature exceeds 1250 °F.

^aAfter you have demonstrated compliance for two consecutive tests, you may reduce the frequency of subsequent performance tests to annually. If the results of any subsequent annual performance test indicate the stationary RICE is not in compliance with the CO or formaldehyde emission limitation, or you deviate from any of your operating limitations, you must resume semiannual performance tests.

Table 7 to Subpart ZZZZ of Part 63—Requirements for Reports

As stated in § 63.6650, you must comply with the following requirements for reports:

For each . . .	You must submit a . . .	The report must contain . . .	You must submit the report . . .
1. Existing non-emergency, non-black start stationary RICE $100 \leq \text{HP} \leq 500$ located at a major source of HAP; existing non-emergency, non-black start stationary CI RICE >500 HP located at a major source of HAP; existing non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP; existing non-emergency, non-black start stationary CI RICE >300 HP located at an area source of HAP; new or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP; and new or reconstructed non-emergency 4SLB stationary RICE $250 \leq \text{HP} \leq 500$ located at a major source of HAP	Compliance report	a. If there are no deviations from any emission limitations or operating limitations that apply to you, a statement that there were no deviations from the emission limitations or operating limitations during the reporting period. If there were no periods during which the CMS, including CEMS and CPMS, was out-of-control, as specified in § 63.8(c)(7), a statement that there were not periods during which the CMS was out-of-control during the reporting period; or b. If you had a deviation from any emission limitation or operating limitation during the reporting period, the information in § 63.6650(d). If there were periods during which the CMS, including CEMS and CPMS, was out-of-control, as specified in § 63.8(c)(7), the information in § 63.6650(e); or	i. Semiannually according to the requirements in § 63.6650(b)(1)-(5) and (i) for engines that are not limited use stationary RICE subject to numerical emission limitations; and ii. Annually according to the requirements in § 63.6650(b)(6)-(9) and (i) for engines that are limited use stationary RICE subject to numerical emission limitations. i. Semiannually according to the requirements in § 63.6650(b) and (i).
		c. If you had a malfunction during the reporting period, the information in § 63.6650(c)(4)	i. Semiannually according to the requirements in § 63.6650(b) and (i).
2. New or reconstructed non-emergency stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis	Report	a. The fuel flow rate of each fuel and the heating values that were used in your calculations, and you must demonstrate that the percentage of heat input provided by landfill gas or digester gas, is equivalent to 10 percent or more of	i. Annually, according to the requirements in § 63.6650.

For each . . .	You must submit a . . .	The report must contain . . .	You must submit the report . . .
		the gross heat input on an annual basis; and	
		b. The operating limits provided in your federally enforceable permit, and any deviations from these limits; and	i. See item 2.a.i.
		c. Any problems or errors suspected with the meters	i. See item 2.a.i.
3. Existing non-emergency, non-black start 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that are not remote stationary RICE and that operate more than 24 hours per calendar year	Compliance report	a. The results of the annual compliance demonstration, if conducted during the reporting period	i. Semiannually according to the requirements in § 63.6650(b)(1)-(5) and (i).
4. Emergency stationary RICE that operate for the purposes specified in § 63.6640(f)(4)(ii)	Report	a. The information in § 63.6650(h)(1)	i. Annually according to the requirements in § 63.6650(h)(2)-(3) and (i).

Table 8 to Subpart ZZZZ of Part 63—Applicability of General Provisions to Subpart ZZZZ

As stated in § 63.6665, you must comply with the following applicable general provisions.

General provisions citation	Subject of citation	Applies to subpart	Explanation
§ 63.1	General applicability of the General Provisions	Yes	
§ 63.2	Definitions	Yes	Additional terms defined in § 63.6675.
§ 63.3	Units and abbreviations	Yes	
§ 63.4	Prohibited activities and circumvention	Yes	
§ 63.5	Construction and reconstruction	Yes	
§ 63.6(a)	Applicability	Yes	
§ 63.6(b)(1)-(4)	Compliance dates for new and reconstructed sources	Yes	
§ 63.6(b)(5)	Notification	Yes	
§ 63.6(b)(6)	[Reserved]		
§ 63.6(b)(7)	Compliance dates for new and reconstructed area sources that become	Yes	

General provisions citation	Subject of citation	Applies to subpart	Explanation
	major sources		
§ 63.6(c)(1)-(2)	Compliance dates for existing sources	Yes	
§ 63.6(c)(3)-(4)	[Reserved]		
§ 63.6(c)(5)	Compliance dates for existing area sources that become major sources	Yes	
§ 63.6(d)	[Reserved]		
§ 63.6(e)	Operation and maintenance	No	
§ 63.6(f)(1)	Applicability of standards	No	
§ 63.6(f)(2)	Methods for determining compliance	Yes	
§ 63.6(f)(3)	Finding of compliance	Yes	
§ 63.6(g)(1)-(3)	Use of alternate standard	Yes	
§ 63.6(h)	Opacity and visible emission standards	No	Subpart ZZZZ does not contain opacity or visible emission standards.
§ 63.6(i)	Compliance extension procedures and criteria	Yes	
§ 63.6(j)	Presidential compliance exemption	Yes	
§ 63.7(a)(1)-(2)	Performance test dates	Yes	Subpart ZZZZ contains performance test dates at §§ 63.6610, 63.6611, and 63.6612.
§ 63.7(a)(3)	CAA section 114 authority	Yes	
§ 63.7(b)(1)	Notification of performance test	Yes	Except that § 63.7(b)(1) only applies as specified in § 63.6645.
§ 63.7(b)(2)	Notification of rescheduling	Yes	Except that § 63.7(b)(2) only applies as specified in § 63.6645.
§ 63.7(c)	Quality assurance/test plan	Yes	Except that § 63.7(c) only applies as specified in § 63.6645.
§ 63.7(d)	Testing facilities	Yes	
§ 63.7(e)(1)	Conditions for conducting performance tests	No	Subpart ZZZZ specifies conditions for conducting performance tests at § 63.6620.
§ 63.7(e)(2)	Conduct of performance tests and reduction of data	Yes	Subpart ZZZZ specifies test methods at § 63.6620.
§ 63.7(e)(3)	Test run duration	Yes	
§ 63.7(e)(4)	Administrator may require other testing	Yes	

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General provisions citation	Subject of citation	Applies to subpart	Explanation
	under section 114 of the CAA		
§ 63.7(f)	Alternative test method provisions	Yes	
§ 63.7(g)	Performance test data analysis, recordkeeping, and reporting	Yes	
§ 63.7(h)	Waiver of tests	Yes	
§ 63.8(a)(1)	Applicability of monitoring requirements	Yes	Subpart ZZZZ contains specific requirements for monitoring at § 63.6625.
§ 63.8(a)(2)	Performance specifications	Yes	
§ 63.8(a)(3)	[Reserved]		
§ 63.8(a)(4)	Monitoring for control devices	No	
§ 63.8(b)(1)	Monitoring	Yes	
§ 63.8(b)(2)-(3)	Multiple effluents and multiple monitoring systems	Yes	
§ 63.8(c)(1)	Monitoring system operation and maintenance	Yes	
§ 63.8(c)(1)(i)	Routine and predictable SSM	No	
§ 63.8(c)(1)(ii)	SSM not in Startup Shutdown Malfunction Plan	Yes	
§ 63.8(c)(1)(iii)	Compliance with operation and maintenance requirements	No	
§ 63.8(c)(2)-(3)	Monitoring system installation	Yes	
§ 63.8(c)(4)	Continuous monitoring system (CMS) requirements	Yes	Except that subpart ZZZZ does not require Continuous Opacity Monitoring System (COMS).
§ 63.8(c)(5)	COMS minimum procedures	No	Subpart ZZZZ does not require COMS.
§ 63.8(c)(6)-(8)	CMS requirements	Yes	Except that subpart ZZZZ does not require COMS.
§ 63.8(d)	CMS quality control	Yes	
§ 63.8(e)	CMS performance evaluation	Yes	Except for § 63.8(e)(5)(ii), which applies to COMS.
			Except that § 63.8(e) only applies as specified in § 63.6645.
§ 63.8(f)(1)-(5)	Alternative monitoring method	Yes	Except that § 63.8(f)(4) only applies as specified in § 63.6645.
§ 63.8(f)(6)	Alternative to relative accuracy test	Yes	Except that § 63.8(f)(6) only applies as specified in §

General provisions citation	Subject of citation	Applies to subpart	Explanation
			63.6645.
§ 63.8(g)	Data reduction	Yes	Except that provisions for COMS are not applicable. Averaging periods for demonstrating compliance are specified at §§ 63.6635 and 63.6640.
§ 63.9(a)	Applicability and State delegation of notification requirements	Yes	
§ 63.9(b)(1)-(5)	Initial notifications	Yes	Except that § 63.9(b)(3) is reserved.
			Except that § 63.9(b) only applies as specified in § 63.6645.
§ 63.9(c)	Request for compliance extension	Yes	Except that § 63.9(c) only applies as specified in § 63.6645.
§ 63.9(d)	Notification of special compliance requirements for new sources	Yes	Except that § 63.9(d) only applies as specified in § 63.6645.
§ 63.9(e)	Notification of performance test	Yes	Except that § 63.9(e) only applies as specified in § 63.6645.
§ 63.9(f)	Notification of visible emission (VE)/opacity test	No	Subpart ZZZZ does not contain opacity or VE standards.
§ 63.9(g)(1)	Notification of performance evaluation	Yes	Except that § 63.9(g) only applies as specified in § 63.6645.
§ 63.9(g)(2)	Notification of use of COMS data	No	Subpart ZZZZ does not contain opacity or VE standards.
§ 63.9(g)(3)	Notification that criterion for alternative to RATA is exceeded	Yes	If alternative is in use. Except that § 63.9(g) only applies as specified in § 63.6645.
§ 63.9(h)(1)-(6)	Notification of compliance status	Yes	Except that notifications for sources using a CEMS are due 30 days after completion of performance evaluations. § 63.9(h)(4) is reserved.
			Except that § 63.9(h) only applies as specified in § 63.6645.
§ 63.9(i)	Adjustment of submittal deadlines	Yes	
§ 63.9(j)	Change in previous information	Yes	
§ 63.9(k)	Electronic reporting procedures	Yes	Only as specified in §§ 63.9(j), 63.6620, 63.6625, 63.6645, and 63.6650.
§ 63.10(a)	Administrative provisions for recordkeeping/reporting	Yes	
§ 63.10(b)(1)	Record retention	Yes	Except that the most recent 2 years of data do not

General provisions citation	Subject of citation	Applies to subpart	Explanation
			have to be retained on site.
§ 63.10(b)(2)(i)-(v)	Records related to SSM	No	
§ 63.10(b)(2)(vi)-(xi)	Records	Yes	
§ 63.10(b)(2)(xii)	Record when under waiver	Yes	
§ 63.10(b)(2)(xiii)	Records when using alternative to RATA	Yes	For CO standard if using RATA alternative.
§ 63.10(b)(2)(xiv)	Records of supporting documentation	Yes	
§ 63.10(b)(3)	Records of applicability determination	Yes	
§ 63.10(c)	Additional records for sources using CEMS	Yes	Except that § 63.10(c)(2)-(4) and (9) are reserved.
§ 63.10(d)(1)	General reporting requirements	Yes	
§ 63.10(d)(2)	Report of performance test results	Yes	
§ 63.10(d)(3)	Reporting opacity or VE observations	No	Subpart ZZZZ does not contain opacity or VE standards.
§ 63.10(d)(4)	Progress reports	Yes	
§ 63.10(d)(5)	Startup, shutdown, and malfunction reports	No	
§ 63.10(e)(1) and (2)(i)	Additional CMS Reports	Yes	
§ 63.10(e)(2)(ii)	COMS-related report	No	Subpart ZZZZ does not require COMS.
§ 63.10(e)(3)	Excess emission and parameter exceedances reports	No	Excess emissions and exceedance reporting is specified in § 63.6650.
§ 63.10(e)(4)	Reporting COMS data	No	Subpart ZZZZ does not require COMS.
§ 63.10(f)	Waiver for recordkeeping/reporting	Yes	
§ 63.11	Flares	No	
§ 63.12	State authority and delegations	Yes	
§ 63.13	Addresses	Yes	
§ 63.14	Incorporation by reference	Yes	
§ 63.15	Availability of information	Yes	

Appendix A to Subpart ZZZZ of Part 63—Protocol for Using an Electrochemical Analyzer to Determine Oxygen and Carbon Monoxide Concentrations From Certain Engines

1.0 Scope and Application. What is this Protocol?

This protocol is a procedure for using portable electrochemical (EC) cells for measuring carbon monoxide (CO) and oxygen (O₂) concentrations in controlled and uncontrolled emissions from existing stationary 4-stroke lean burn and 4-stroke rich burn reciprocating internal combustion engines as specified in the applicable rule.

1.1 Analytes. What does this protocol determine?

This protocol measures the engine exhaust gas concentrations of carbon monoxide (CO) and oxygen (O₂).

Analyte	CAS No.	Sensitivity
Carbon monoxide (CO)	630-08-0	Minimum detectable limit should be 2 percent of the nominal range or 1 ppm, whichever is less restrictive.
Oxygen (O ₂)	7782-44-7	

1.2 Applicability. When is this protocol acceptable?

This protocol is applicable to 40 CFR part 63, subpart ZZZZ. Because of inherent cross sensitivities of EC cells, you must not apply this protocol to other emissions sources without specific instruction to that effect.

1.3 Data Quality Objectives. How good must my collected data be?

Refer to Section 13 to verify and document acceptable analyzer performance.

1.4 Range. What is the targeted analytical range for this protocol?

The measurement system and EC cell design(s) conforming to this protocol will determine the analytical range for each gas component. The nominal ranges are defined by choosing up-scale calibration gas concentrations near the maximum anticipated flue gas concentrations for CO and O₂, or no more than twice the permitted CO level.

1.5 Sensitivity. What minimum detectable limit will this protocol yield for a particular gas component?

The minimum detectable limit depends on the nominal range and resolution of the specific EC cell used, and the signal to noise ratio of the measurement system. The minimum detectable limit should be 2 percent of the nominal range or 1 ppm, whichever is less restrictive.

2.0 Summary of Protocol

In this protocol, a gas sample is extracted from an engine exhaust system and then conveyed to a portable EC analyzer for measurement of CO and O₂ gas concentrations. This method provides measurement system performance specifications and sampling protocols to ensure reliable data. You may use additions to, or modifications of vendor supplied measurement systems (e.g., heated or unheated sample lines, thermocouples, flow meters, selective gas scrubbers, etc.) to meet the design specifications of this protocol. Do not make changes to the measurement system from the as-verified configuration (Section 3.12).

3.0 Definitions

3.1 Measurement System. The total equipment required for the measurement of CO and O₂ concentrations. The measurement system consists of the following major subsystems:

3.1.1 Data Recorder. A strip chart recorder, computer or digital recorder for logging measurement data from the analyzer output. You may record measurement data from the digital data display manually or electronically.

3.1.2 Electrochemical (EC) Cell. A device, similar to a fuel cell, used to sense the presence of a specific analyte and generate an electrical current output proportional to the analyte concentration.

3.1.3 Interference Gas Scrubber. A device used to remove or neutralize chemical compounds that may interfere with the selective operation of an EC cell.

3.1.4 Moisture Removal System. Any device used to reduce the concentration of moisture in the sample stream so as to protect the EC cells from the damaging effects of condensation and to minimize errors in measurements caused by the scrubbing of soluble gases.

3.1.5 Sample Interface. The portion of the system used for one or more of the following: sample acquisition; sample transport; sample conditioning or protection of the EC cell from any degrading effects of the engine exhaust effluent; removal of particulate matter and condensed moisture.

3.2 Nominal Range. The range of analyte concentrations over which each EC cell is operated (normally 25 percent to 150 percent of up-scale calibration gas value). Several nominal ranges can be used for any given cell so long as the calibration and repeatability checks for that range remain within specifications.

3.3 Calibration Gas. A vendor certified concentration of a specific analyte in an appropriate balance gas.

3.4 Zero Calibration Error. The analyte concentration output exhibited by the EC cell in response to zero-level calibration gas.

3.5 Up-Scale Calibration Error. The mean of the difference between the analyte concentration exhibited by the EC cell and the certified concentration of the up-scale calibration gas.

3.6 Interference Check. A procedure for quantifying analytical interference from components in the engine exhaust gas other than the targeted analytes.

3.7 Repeatability Check. A protocol for demonstrating that an EC cell operated over a given nominal analyte concentration range provides a stable and consistent response and is not significantly affected by repeated exposure to that gas.

3.8 Sample Flow Rate. The flow rate of the gas sample as it passes through the EC cell. In some situations, EC cells can experience drift with changes in flow rate. The flow rate must be monitored and documented during all phases of a sampling run.

3.9 Sampling Run. A timed three-phase event whereby an EC cell's response rises and plateaus in a sample conditioning phase, remains relatively constant during a measurement data phase, then declines during a refresh phase. The sample conditioning phase exposes the EC cell to the gas sample for a length of time sufficient to reach a constant response. The measurement data phase is the time interval during which gas sample measurements can be made that meet the acceptance criteria of this protocol. The refresh phase then purges the EC cells with CO-free air. The refresh phase replenishes requisite O₂ and moisture in the electrolyte reserve and provides a mechanism to de-gas or desorb any interference gas scrubbers or filters so as to enable a stable CO EC cell response. There are four primary types of sampling runs: pre-sampling calibrations; stack gas sampling; post-sampling calibration checks; and measurement system repeatability checks. Stack gas

sampling runs can be chained together for extended evaluations, providing all other procedural specifications are met.

3.10 Sampling Day. A time not to exceed twelve hours from the time of the pre-sampling calibration to the post-sampling calibration check. During this time, stack gas sampling runs can be repeated without repeated recalibrations, providing all other sampling specifications have been met.

3.11 Pre-Sampling Calibration/Post-Sampling Calibration Check. The protocols executed at the beginning and end of each sampling day to bracket measurement readings with controlled performance checks.

3.12 Performance-Established Configuration. The EC cell and sampling system configuration that existed at the time that it initially met the performance requirements of this protocol.

4.0 Interferences.

When present in sufficient concentrations, NO and NO₂ are two gas species that have been reported to interfere with CO concentration measurements. In the likelihood of this occurrence, it is the protocol user's responsibility to employ and properly maintain an appropriate CO EC cell filter or scrubber for removal of these gases, as described in Section 6.2.12.

5.0 Safety. [Reserved]

6.0 Equipment and Supplies.

6.1 What equipment do I need for the measurement system?

The system must maintain the gas sample at conditions that will prevent moisture condensation in the sample transport lines, both before and as the sample gas contacts the EC cells. The essential components of the measurement system are described below.

6.2 Measurement System Components.

6.2.1 Sample Probe. A single extraction-point probe constructed of glass, stainless steel or other non-reactive material, and of length sufficient to reach any designated sampling point. The sample probe must be designed to prevent plugging due to condensation or particulate matter.

6.2.2 Sample Line. Non-reactive tubing to transport the effluent from the sample probe to the EC cell.

6.2.3 Calibration Assembly (optional). A three-way valve assembly or equivalent to introduce calibration gases at ambient pressure at the exit end of the sample probe during calibration checks. The assembly must be designed such that only stack gas or calibration gas flows in the sample line and all gases flow through any gas path filters.

6.2.4 Particulate Filter (optional). Filters before the inlet of the EC cell to prevent accumulation of particulate material in the measurement system and extend the useful life of the components. All filters must be fabricated of materials that are non-reactive to the gas mixtures being sampled.

6.2.5 Sample Pump. A leak-free pump to provide undiluted sample gas to the system at a flow rate sufficient to minimize the response time of the measurement system. If located upstream of the EC cells, the pump must be constructed of a material that is non-reactive to the gas mixtures being sampled.

6.2.8 Sample Flow Rate Monitoring. An adjustable rotameter or equivalent device used to adjust and maintain the sample flow rate through the analyzer as prescribed.

6.2.9 Sample Gas Manifold (optional). A manifold to divert a portion of the sample gas stream to the analyzer and the remainder to a by-pass discharge vent. The sample gas manifold may also include provisions for introducing calibration gases directly to the analyzer. The manifold must be constructed of a material that is non-reactive to the gas mixtures being sampled.

6.2.10 EC cell. A device containing one or more EC cells to determine the CO and O₂ concentrations in the sample gas stream. The EC cell(s) must meet the applicable performance specifications of Section 13 of this protocol.

6.2.11 Data Recorder. A strip chart recorder, computer or digital recorder to make a record of analyzer output data. The data recorder resolution (i.e., readability) must be no greater than 1 ppm for CO; 0.1 percent for O₂; and one degree (either °C or °F) for temperature. Alternatively, you may use a digital or analog meter having the same resolution to observe and manually record the analyzer responses.

6.2.12 Interference Gas Filter or Scrubber. A device to remove interfering compounds upstream of the CO EC cell. Specific interference gas filters or scrubbers used in the performance-established configuration of the analyzer must continue to be used. Such a filter or scrubber must have a means to determine when the removal agent is exhausted. Periodically replace or replenish it in accordance with the manufacturer's recommendations.

7.0 Reagents and Standards. What calibration gases are needed?

7.1 Calibration Gases. CO calibration gases for the EC cell must be CO in nitrogen or CO in a mixture of nitrogen and O₂. Use CO calibration gases with labeled concentration values certified by the manufacturer to be within ±5 percent of the label value. Dry ambient air (20.9 percent O₂) is acceptable for calibration of the O₂ cell. If needed, any lower percentage O₂ calibration gas must be a mixture of O₂ in nitrogen.

7.1.1 Up-Scale CO Calibration Gas Concentration. Choose one or more up-scale gas concentrations such that the average of the stack gas measurements for each stack gas sampling run are between 25 and 150 percent of those concentrations. Alternatively, choose an up-scale gas that does not exceed twice the concentration of the applicable outlet standard. If a measured gas value exceeds 150 percent of the up-scale CO calibration gas value at any time during the stack gas sampling run, the run must be discarded and repeated.

7.1.2 Up-Scale O₂ Calibration Gas Concentration.

Select an O₂ gas concentration such that the difference between the gas concentration and the average stack gas measurement or reading for each sample run is less than 15 percent O₂. When the average exhaust gas O₂ readings are above 6 percent, you may use dry ambient air (20.9 percent O₂) for the up-scale O₂ calibration gas.

7.1.3 Zero Gas. Use an inert gas that contains less than 0.25 percent of the up-scale CO calibration gas concentration. You may use dry air that is free from ambient CO and other combustion gas products (e.g., CO₂).

8.0 Sample Collection and Analysis

8.1 Selection of Sampling Sites.

8.1.1 Control Device Inlet. Select a sampling site sufficiently downstream of the engine so that the combustion gases should be well mixed. Use a single sampling extraction point near the center of the duct (e.g., within the 10 percent centroidal area), unless instructed otherwise.

8.1.2 Exhaust Gas Outlet. Select a sampling site located at least two stack diameters downstream of any disturbance (e.g., turbocharger exhaust, crossover junction or recirculation take-off) and at least one-half stack diameter upstream of the gas discharge to the atmosphere. Use a single sampling extraction point near the center of the duct (e.g., within the 10 percent centroidal area), unless instructed otherwise.

8.2 Stack Gas Collection and Analysis. Prior to the first stack gas sampling run, conduct that the pre-sampling calibration in accordance with Section 10.1. Use Figure 1 to record all data. Zero the analyzer with zero gas. Confirm and record that the scrubber media color is correct and not exhausted. Then position the probe at the sampling point and begin the sampling run at the same flow rate used during the up-scale calibration. Record the start time. Record all EC cell output responses and the flow rate during the “sample conditioning phase” once per minute until constant readings are obtained. Then begin the “measurement data phase” and record readings every 15 seconds for at least two minutes (or eight readings), or as otherwise required to achieve two continuous minutes of data that meet the specification given in Section 13.1. Finally, perform the “refresh phase” by introducing dry air, free from CO and other combustion gases, until several minute-to-minute readings of consistent value have been obtained. For each run use the “measurement data phase” readings to calculate the average stack gas CO and O₂ concentrations.

8.3 EC Cell Rate. Maintain the EC cell sample flow rate so that it does not vary by more than ± 10 percent throughout the pre-sampling calibration, stack gas sampling and post-sampling calibration check. Alternatively, the EC cell sample flow rate can be maintained within a tolerance range that does not affect the gas concentration readings by more than ± 3 percent, as instructed by the EC cell manufacturer.

9.0 Quality Control (Reserved)

10.0 Calibration and Standardization

10.1 Pre-Sampling Calibration. Conduct the following protocol once for each nominal range to be used on each EC cell before performing a stack gas sampling run on each field sampling day. Repeat the calibration if you replace an EC cell before completing all of the sampling runs. There is no prescribed order for calibration of the EC cells; however, each cell must complete the measurement data phase during calibration. Assemble the measurement system by following the manufacturer's recommended protocols including for preparing and preconditioning the EC cell. Assure the measurement system has no leaks and verify the gas scrubbing agent is not depleted. Use Figure 1 to record all data.

10.1.1 Zero Calibration. For both the O₂ and CO cells, introduce zero gas to the measurement system (e.g., at the calibration assembly) and record the concentration reading every minute until readings are constant for at least two consecutive minutes. Include the time and sample flow rate. Repeat the steps in this section at least once to verify the zero calibration for each component gas.

10.1.2 Zero Calibration Tolerance. For each zero gas introduction, the zero level output must be less than or equal to ± 3 percent of the up-scale gas value or ± 1 ppm, whichever is less restrictive, for the CO channel and less than or equal to ± 0.3 percent O₂ for the O₂ channel.

10.1.3 Up-Scale Calibration. Individually introduce each calibration gas to the measurement system (e.g., at the calibration assembly) and record the start time. Record all EC cell output responses and the flow rate

during this “sample conditioning phase” once per minute until readings are constant for at least two minutes. Then begin the “measurement data phase” and record readings every 15 seconds for a total of two minutes, or as otherwise required. Finally, perform the “refresh phase” by introducing dry air, free from CO and other combustion gases, until readings are constant for at least two consecutive minutes. Then repeat the steps in this section at least once to verify the calibration for each component gas. Introduce all gases to flow through the entire sample handling system (i.e., at the exit end of the sampling probe or the calibration assembly).

10.1.4 Up-Scale Calibration Error. The mean of the difference of the “measurement data phase” readings from the reported standard gas value must be less than or equal to ± 5 percent or ± 1 ppm for CO or ± 0.5 percent O₂, whichever is less restrictive, respectively. The maximum allowable deviation from the mean measured value of any single “measurement data phase” reading must be less than or equal to ± 2 percent or ± 1 ppm for CO or ± 0.5 percent O₂, whichever is less restrictive, respectively.

10.2 Post-Sampling Calibration Check. Conduct a stack gas post-sampling calibration check after the stack gas sampling run or set of runs and within 12 hours of the initial calibration. Conduct up-scale and zero calibration checks using the protocol in Section 10.1. Make no changes to the sampling system or EC cell calibration until all post-sampling calibration checks have been recorded. If either the zero or up-scale calibration error exceeds the respective specification in Sections 10.1.2 and 10.1.4 then all measurement data collected since the previous successful calibrations are invalid and re-calibration and re-sampling are required. If the sampling system is disassembled or the EC cell calibration is adjusted, repeat the calibration check before conducting the next analyzer sampling run.

11.0 Analytical Procedure

The analytical procedure is fully discussed in Section 8.

12.0 Calculations and Data Analysis

Determine the CO and O₂ concentrations for each stack gas sampling run by calculating the mean gas concentrations of the data recorded during the “measurement data phase”.

13.0 Protocol Performance

Use the following protocols to verify consistent analyzer performance during each field sampling day.

13.1 Measurement Data Phase Performance Check. Calculate the mean of the readings from the “measurement data phase”. The maximum allowable deviation from the mean for each of the individual readings is ± 2 percent, or ± 1 ppm, whichever is less restrictive. Record the mean value and maximum deviation for each gas monitored. Data must conform to Section 10.1.4. The EC cell flow rate must conform to the specification in Section 8.3.

Example: A measurement data phase is invalid if the maximum deviation of any single reading comprising that mean is greater than ± 2 percent or ± 1 ppm (the default criteria). For example, if the mean = 30 ppm, single readings of below 29 ppm and above 31 ppm are disallowed).

13.2 Interference Check. Before the initial use of the EC cell and interference gas scrubber in the field, and semi-annually thereafter, challenge the interference gas scrubber with NO and NO₂ gas standards that are generally recognized as representative of diesel-fueled engine NO and NO₂ emission values. Record the responses displayed by the CO EC cell and other pertinent data on Figure 1 or a similar form.

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Appendix J. 40 CFR 63, Subpart RRRRR—National Emission Standards for Hazardous Air Pollutants: Taconite Iron Ore Processing

§63.9580 What is the purpose of this subpart?

This subpart establishes national emission standards for hazardous air pollutants (NESHAP) for taconite iron ore processing. This subpart also establishes requirements to demonstrate initial and continuous compliance with all applicable emission limitations (emission limits and operating limits), work practice standards, and operation and maintenance requirements in this subpart.

§63.9581 Am I subject to this subpart?

You are subject to this subpart if you own or operate a taconite iron ore processing plant that is (or is part of) a major source of hazardous air pollutant (HAP) emissions. Your taconite iron ore processing plant is a major source of HAP if it emits or has the potential to emit any single HAP at a rate of 10 tons or more per year or any combination of HAP at a rate of 25 tons or more per year.

§63.9582 What parts of my plant does this subpart cover?

- (a) This subpart applies to each new and existing affected source at your taconite iron ore processing plant.
- (b) The affected sources are each new or existing ore crushing and handling operation, ore dryer, indurating furnace, and finished pellet handling operation at your taconite iron ore processing plant, as defined in §63.9652.
- (c) This subpart covers emissions from ore crushing and handling emission units, ore dryer stacks, indurating furnace stacks, finished pellet handling emission units, and fugitive dust emissions.
- (d) An ore crushing and handling operation, ore dryer, indurating furnace, or finished pellet handling operation at your taconite iron ore processing plant is existing if you commenced construction or reconstruction of the affected source before December 18, 2002.
- (e) An ore crushing and handling operation, ore dryer, indurating furnace, or finished pellet handling operation at your taconite iron ore processing plant is new if you commence construction or reconstruction of the affected source on or after December 18, 2002. An affected source is reconstructed if it meets the definition of reconstruction in §63.2.

§63.9583 When do I have to comply with this subpart?

- (a) If you have an existing affected source, you must comply with each emission limitation, work practice standard, and operation and maintenance requirement in this subpart that applies to you no later than October 30, 2006, except as specified in paragraph (f) of this section.
- (b) If you have a new affected source and its initial startup date is on or before October 30, 2003, you must comply with each emission limitation, work practice standard, and operation and maintenance requirement in this subpart that applies to you by October 30, 2003, except as specified in paragraph (f) of this section.
- (c) If you have a new affected source and its initial startup date is after October 30, 2003, you must comply with each emission limitation, work practice standard, and operation and maintenance

requirement in this subpart that applies to you upon initial startup, except as specified in paragraph (f) of this section.

(d) If your taconite iron ore processing plant is an area source that becomes a major source of HAP, the compliance dates in paragraphs (d)(1) and (2) of this section apply to you.

(1) Any portion of the taconite iron ore processing plant that is a new affected source or a new reconstructed source must be in compliance with this subpart upon startup.

(2) All other parts of the taconite iron ore processing plant must be in compliance with this subpart no later than 3 years after the plant becomes a major source.

(e) You must meet the notification and schedule requirements in § 63.9640. Several of these notifications must be submitted before the compliance date for your affected source.

(f) If you have an affected indurating furnace that commenced construction before May 15, 2023, you must comply with the requirements in paragraphs (f)(1) through (7) of this section by March 8, 2027. If you have an affected indurating furnace that commenced construction or reconstruction on or after May 15, 2023, you must comply with the requirements in paragraphs (f)(1) through (7) of this section by March 6, 2024 or the date of initial startup, whichever is later.

(1) All applicable emission limits for mercury, hydrogen chloride, and hydrogen fluoride in tables 2 and 3 to this subpart.

(2) All applicable operating limits in § 63.9590(b)(5) through (8), established in accordance with § 63.9622(g) through (i), for each control device used to comply with the mercury, hydrogen chloride, and hydrogen fluoride emission limits.

(3) All applicable compliance requirements in §§ 63.9600, 63.9610, 63.9623, 63.9625, and 63.9637(a).

(4) The applicable performance testing or continuous emissions monitoring system (CEMS) requirements for mercury in §§ 63.9620(k), 63.9621(d), and 63.9630.

(5) All applicable performance testing requirements in §§ 63.9620(l), 63.9621(d), and 63.9630.

(6) The requirements to install and maintain monitoring equipment in § 63.6332(g) through (i) and the monitoring requirements in §§ 63.9631, 63.9633, and 63.9634 for each control device used to comply with the mercury, hydrogen chloride and hydrogen fluoride emission limits.

(7) The notification, reporting and recordkeeping requirements in §§ 63.9640, 63.9641, 63.9642, and 63.9643 applicable to the mercury, hydrogen chloride, and hydrogen fluoride emission standards.

Emission Limitations and Work Practice Standards

§63.9590 What emission limitations must I meet?

(a) You must meet each emission limit in tables 1 through 3 to this subpart that applies to you by the applicable compliance date specified in § 63.9583.

(b) You must meet each applicable operating limit for control devices in paragraphs (b)(1) through (8) of this section that applies to you by the applicable compliance date specified in § 63.9583. You are not required to establish and comply with operating limits for control devices used to reduce mercury

emissions when you are using a CEMS to monitor and demonstrate compliance with the mercury emission limit in table 2 to this subpart.

(1) Except as provided in paragraph (b)(2) of this section, for each wet scrubber applied to meet any particulate matter emission limit in table 1 to this subpart, you must maintain the daily average pressure drop and daily average scrubber water flow rate at or above the minimum levels established in § 63.9622.

(2) On or before January 28, 2022, for affected sources that commenced construction or reconstruction on or before September 25, 2019, for each dynamic wet scrubber applied to meet any particulate matter emission limit in table 1 to this subpart, you must maintain the daily average scrubber water flow rate and either the daily average fan amperage (a surrogate for fan speed as revolutions per minute) or the daily average pressure drop at or above the minimum levels established during the initial performance test. After January 28, 2022, for affected sources that commenced construction or reconstruction on or before September 25, 2019, and after July 28, 2020, or upon start-up, whichever date is later, for affected sources that commenced construction or reconstruction after September 25, 2019, for each dynamic wet scrubber applied to meet any particulate matter emission limit in table 1 to this subpart, you must maintain the daily average scrubber water flow rate and the daily average fan amperage (a surrogate for fan speed as revolutions per minute) at or above the minimum levels established in § 63.9622.

(3) For each dry electrostatic precipitator (ESP) applied to meet any particulate matter emission limit in Table 1 to this subpart, you must meet the operating limits in paragraph (b)(3)(i) or (ii) of this section.

(i) Maintain the 6-minute average opacity of emissions exiting the control device stack at or below the level established during the initial performance test.

(ii) Maintain the daily average secondary voltage and daily average secondary current for each field at or above the minimum levels established during the initial performance test.

(4) For each wet ESP applied to meet any particulate matter emission limit in table 1 to this subpart, you must meet the operating limits in paragraphs (b)(4)(i) through (iii) of this section.

(i) Maintain the daily average secondary voltage for each field at or above the minimum levels established during the initial performance test.

(ii) Maintain the daily average stack outlet temperature at or below the maximum levels established during the initial performance test.

(iii) Maintain the daily average water flow rate at or above the minimum levels established during the initial performance test.

(5) For each wet scrubber and wet ESP used to meet the hydrogen chloride and hydrogen fluoride emission limits in table 3 to this subpart, you must maintain the daily average scrubber water flow rate and pH greater than or equal to the operating limits established for these parameters established in § 63.9622.

(6) For each activated carbon injection (ACI) system used to meet the mercury emission limit in table 2 to this subpart, you must maintain the daily average activated carbon injection rate greater than or equal to the average activated carbon injection rate established during the most recent performance

test demonstrating compliance with the applicable emission limit. In addition, you must maintain the daily average carrier gas flow rate greater than or equal to the average carrier gas flow rate established during the most recent performance test demonstrating compliance with the applicable emission limit.

(7) For each dry sorbent injection (DSI) system used to meet the hydrogen chloride and hydrogen fluoride emission limits in table 3 to this subpart, you must maintain the daily average dry sorbent injection rate greater than or equal to the average dry sorbent injection rate established during the most recent performance test demonstrating compliance with the applicable emission limit. In addition, you must maintain the daily average carrier gas flow rate greater than or equal to the average carrier gas flow rate established during the most recent performance test demonstrating compliance with the applicable emission limit.

(8) If you use any air pollution control device other than a baghouse, wet scrubber, dynamic scrubber, dry ESP, wet ESP, ACI, or DSI, you must submit a site-specific monitoring plan in accordance with § 63.9631(f).

(c) You may petition the Administrator for approval of alternatives to the monitoring requirements in paragraphs (b)(1) through (7) of this section as allowed under § 63.8(f) and as defined in § 63.90.

§63.9591 What work practice standards must I meet?

(a) You must prepare, and at all times operate according to, a fugitive dust emissions control plan that describes in detail the measures that will be put in place to control fugitive dust emissions from the locations listed in paragraphs (a)(1) through (6) of this section.

- (1) Stockpiles (includes, but is not limited to, stockpiles of uncrushed ore, crushed ore, or finished pellets);
- (2) Material transfer points;
- (3) Plant roadways;
- (4) Tailings basin;
- (5) Pellet loading areas; and
- (6) Yard areas.

(b) A copy of your fugitive dust emissions control plan must be submitted for approval to the Administrator on or before the applicable compliance date for the affected source as specified in §63.9583. The requirement for the plant to operate according to the fugitive dust emissions control plan must be incorporated by reference in the operating permit for the plant that is issued by the designated permitting authority under 40 CFR part 70 or 40 CFR part 71.

(c) You can use an existing fugitive dust emissions control plan provided it meets the requirements in paragraphs (c)(1) through (3) of this section.

- (1) The plan satisfies the requirements of paragraph (a) of this section.
- (2) The plan describes the current measures to control fugitive dust emission sources.
- (3) The plan has been approved as part of a State implementation plan or title V permit.

(d) You must maintain a current copy of the fugitive dust emissions control plan onsite, and it must be available for inspection upon request. You must keep the plan for the life of the affected source or until the affected source is no longer subject to the requirements of this subpart.

Operation and Maintenance Requirements

§63.9600 What are my operation and maintenance requirements?

(a) On or before January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, you must always operate and maintain your affected source, including air pollution control and monitoring equipment, according to the provisions in §63.6(e)(1)(i). After January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, and after July 28, 2020, or upon start-up, whichever date is later, for affected sources that commenced construction or reconstruction after September 25, 2019, at all times, you must always operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the owner or operator to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

(b) You must prepare, and at all times, operate according to, a written operation and maintenance plan for each control device applied to meet any particulate matter emission limit in table 1 to this subpart, mercury emission limit in table 2 to this subpart, hydrogen chloride and hydrogen fluoride emission limit in table 3 to this subpart, and to meet the requirement of each indurating furnace subject to good combustion practices (GCP). Each site-specific operation and maintenance plan must be submitted to the Administrator on or before the compliance date that is specified in § 63.9583 for your affected source. The plan you submit must explain why the chosen practices (*i.e.*, quantified objectives) are effective in performing corrective actions or GCP in minimizing the formation of formaldehyde (and other products of incomplete combustion). The Administrator will review the adequacy of the site-specific practices and objectives you will follow and the records you will keep to demonstrate compliance with your Plan. If the Administrator determines that any portion of your operation and maintenance plan is not adequate, we can reject those portions of the plan, and request that you provide additional information addressing the relevant issues. In the interim of this process, you will continue to follow your current site-specific practices and objectives, as submitted, until your revisions are accepted as adequate by the Administrator. You must maintain a current copy of the operation and maintenance plan onsite, and it must be available for inspection upon request. You must keep the plan for the life of the affected source or until the affected source is no longer subject to the requirements of this subpart. Each operation and maintenance plan must address the elements in paragraphs (b)(1) through (4) of this section. (1) Preventative maintenance for each control device, including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.

(2) Corrective action procedures for bag leak detection systems. On or before January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, in the event a bag leak detection system alarm is triggered, you must initiate corrective action to determine the cause of the alarm within 1 hour of the alarm, initiate corrective action to correct the cause of the problem within 24 hours of the alarm, and complete the corrective action as soon as practicable. Corrective actions may include, but are not limited to, the actions listed in paragraphs (b)(2)(i) through (vi) of this section. After January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, and after July 28, 2020, or upon start-up, whichever date is later, for affected sources that commenced construction or reconstruction after September 25, 2019, in the event a bag leak detection system alarm is triggered, you must initiate corrective action to determine the cause of the alarm within 1 hour of the alarm, initiate corrective action to correct the cause of the problem within 24 hours of the alarm, and complete the corrective action as soon as practicable. If the alarm sounds more than 5 percent of the operating time during a 6-month period as determined according to §63.9634(d)(3), it is considered an operating parameter deviation. Corrective actions may include, but are not limited to, the actions listed in paragraphs (b)(2)(i) through (vi) of this section.

- (i) Inspecting the baghouse for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in emissions.
- (ii) Sealing off defective bags or filter media.
- (iii) Replacing defective bags or filter media or otherwise repairing the control device.
- (iv) Sealing off a defective baghouse compartment.
- (v) Cleaning the bag leak detection system probe, or otherwise repairing the bag leak detection system.
- (vi) Adjusting the process operation producing the particulate emissions.

(3) Corrective action procedures for continuous parameter monitoring systems (CPMS) for all air pollution control devices except for baghouses. In the event you exceed an established operating limit for an air pollution control device except for a baghouse, you must initiate corrective action to determine the cause of the operating limit exceedance and complete the corrective action within 10 calendar days. The corrective action procedures you take must be consistent with the installation, operation, and maintenance procedures listed in your site-specific CPMS monitoring plan in accordance with §63.9632(b).

(4) Good combustion practices for indurating furnaces. You must identify and implement a set of site-specific GCP for each type of indurating furnace at your plant. These GCP should correspond to your standard operating procedures for maintaining the proper and efficient combustion within each indurating furnace. Good combustion practices include, but are not limited to, the elements listed in paragraphs (b)(4)(i) through (v) of this section.

- (i) Proper operating conditions for each indurating furnace (e.g., minimum combustion temperature, maximum carbon monoxide concentration in the furnace exhaust gases, burner alignment, or proper fuel-air distribution/mixing).

- (ii) Routine inspection and preventative maintenance and corresponding schedules of each indurating furnace.
- (iii) Performance analyses of each indurating furnace.
- (iv) Keeping applicable operator logs.
- (v) Keeping applicable records to document compliance with each element.

General Compliance Requirements

§63.9610 What are my general requirements for complying with this subpart?

- (a) On or before January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, you must be in compliance with the requirements in paragraphs (a)(1) through (6) of this section at all times, except during periods of startup, shutdown, and malfunction. After January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, and after July 28, 2020, for affected sources that commenced construction or reconstruction after September 25, 2019, you must be in compliance with the emission limitations, standards, and operation and maintenance requirements for the particulate matter emission standards in this subpart at all times. (1) The emission limitations in §63.9590.
- (2) The work practice standards in §63.9591.
 - (3) The operation and maintenance requirements in §63.9600.
 - (4) The notification requirements in §63.9640.
 - (5) The reporting requirements in §63.9641.
 - (6) The recordkeeping requirements in §63.9642.
- (b) During the period between the compliance date specified for your affected source in §63.9583 and the date upon which continuous monitoring systems have been installed and certified and any applicable operating limits have been set, you must maintain a log detailing the operation and maintenance of the process and emissions control equipment. This includes the daily monitoring and recordkeeping of air pollution control device operating parameters as specified in §63.9590(b).
- (c) On or before January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, you must develop a written startup, shutdown, and malfunction plan according to the provisions in §63.6(e)(3). For affected sources, a startup, shutdown, and malfunction plan is not required after January 25, 2021. No startup, shutdown, and malfunction plan is required for affected sources that commenced construction or reconstruction after September 25, 2019.
- (d) On and after the applicable compliance date specified in § 63.9583(f), you must be in compliance with all applicable emission limitations for mercury, hydrogen chloride and hydrogen fluoride in tables 2 and 3 to this subpart and with the requirements in paragraphs (d)(1) through (6) of this section at all times.
- (1) All applicable operating limits in § 63.9590(b)(5) through (8).
 - (2) All applicable operation and maintenance requirements in § 63.9600 for control devices and monitoring equipment used to comply with the emissions limits.

- (3) The requirements in § 63.9631(j), if you use emissions averaging to demonstrate compliance with the mercury standards.
- (4) The requirements in § 63.9631(k), if you use continuous emissions monitoring system(s) (CEMS) to demonstrate compliance with the mercury standards.
- (5) The requirements in § 63.9634(n), if you elect to adjust the activated carbon injection rate based on the taconite pellet production rate.
- (6) The notification, reporting and recordkeeping requirements in §§ 63.9640 through 63.9643.

Initial Compliance Requirements

§63.9620 On which units and by what date must I conduct performance tests or other initial compliance demonstrations?

- (a) For each ore crushing and handling affected source, you must demonstrate initial compliance with the emission limits in Table 1 to this subpart by conducting an initial performance test for particulate matter as specified in paragraphs (a)(1) and (2) of this section.
 - (1) Except as provided in paragraph (e) of this section, an initial performance test must be performed on all stacks associated with ore crushing and handling.
 - (2) Initial performance tests must be completed no later than 180 calendar days after the compliance date specified in § 63.9583. Performance tests conducted between October 30, 2003, and no later than 180 days after the corresponding compliance date can be used for initial compliance demonstration, provided the tests meet the initial performance testing requirements of this subpart. For an indurating furnace with multiple stacks, the performance tests for all stacks must be completed within 7 calendar days of commencement of the performance tests, to the extent practicable, and the indurating furnace and associated control device (where applicable) operating characteristics must remain representative and consistent for the duration of the stack tests. If you determine that the performance tests cannot be completed within 7 calendar days, the Administrator must be notified within 24 hours of making that determination.
- (b) For each indurating furnace affected source, you must demonstrate initial compliance with the emission limits in Table 1 to this subpart by conducting an initial performance test for particulate matter as specified in paragraphs (b)(1) and (2) of this section.
 - (1) An initial performance test must be performed on all stacks associated with each indurating furnace.
 - (2) Initial performance tests must be completed no later than 180 calendar days after the compliance date specified in §63.9583. Performance tests conducted between October 30, 2003 and no later than 180 days after the corresponding compliance date can be used for initial compliance demonstration, provided the tests meet the initial performance testing requirements of this subpart. For indurating furnaces with multiple stacks, the performance tests for all stacks must be completed within a reasonable period of time, such that the indurating furnace operating characteristics remain representative for the duration of the stack tests.

(c) For each finished pellet handling affected source, you must demonstrate initial compliance with the emission limits in Table 1 to this subpart by conducting an initial performance test for particulate matter as specified in paragraphs (c)(1) and (2) of this section.

(1) Except as provided in paragraph (e) of this section, an initial performance test must be performed on all stacks associated with finished pellet handling.

(2) Initial performance tests must be completed no later than 180 calendar days after the compliance date specified in §63.9583. Performance tests conducted between October 30, 2003 and no later than 180 days after the corresponding compliance date can be used for initial compliance demonstration, provided the tests meet the initial compliance testing requirements of this subpart.

(d) For each ore dryer affected source, you must demonstrate initial compliance with the emission limits in Table 1 to this subpart by conducting an initial performance test for particulate matter as specified in paragraphs (d)(1) and (2) of this section.

(1) An initial performance test must be performed on all stacks associated with each ore dryer.

(2) Initial performance tests must be completed no later than 180 calendar days after the compliance date specified in §63.9583. Performance tests conducted between October 30, 2003 and no later than 180 days after the corresponding compliance date can be used for initial compliance demonstration, provided the tests meet the initial compliance testing requirements of this subpart. For ore dryers with multiple stacks, the performance tests for all stacks must be completed within a reasonable period of time, such that the ore dryer operating characteristics remain representative for the duration of the stack tests.

(e) For ore crushing and handling affected sources and finished pellet handling affected sources, in lieu of conducting initial performance tests for particulate matter on all stacks, you may elect to group a maximum of six similar emission units together and conduct an initial compliance test on one representative emission unit within each group of similar emission units. The determination of whether emission units are similar must meet the criteria in paragraph (f) of this section. If you decide to test representative emission units, you must prepare and submit a testing plan as described in paragraph (g) of this section.

(f) If you elect to test representative emission units as provided in paragraph (e) of this section, the units that are grouped together as similar units must meet the criteria in paragraphs (f)(1) and (2) of this section.

(1) All emission units within a group must be of the same process type (e.g., primary crushers, secondary crushers, tertiary crushers, fine crushers, ore conveyors, ore bins, ore screens, grate feed, pellet loadout, hearth layer, cooling stacks, pellet conveyor, and pellet screens). You cannot group emission units from different process types together for the purposes of this section.

(2) All emission units within a group must also have the same type of air pollution control device (e.g., wet scrubbers, dynamic wet scrubbers, rotoclones, multiclones, wet and dry ESP, and baghouses). You cannot group emission units with different air pollution control device types together for the purposes of this section.

(3) The site-specific operating limits established for the emission unit selected as representative of a group of similar emission units will be used as the operating limit for each emission unit within the

group. The operating limit established for the representative unit must be met by each emission unit within the group.

(g) If you plan to conduct initial performance tests on representative emission units within an ore crushing and handling affected source or a finished pellet handling affected source, you must submit a testing plan for initial performance tests. This testing plan must be submitted to the Administrator or delegated authority no later than 90 days prior to the first scheduled initial performance test. The testing plan must contain the information specified in paragraphs (g)(1) through (3) of this section.

(1) A list of all emission units. This list must clearly identify all emission units that have been grouped together as similar emission units. Within each group of emission units, you must identify the emission unit that will be the representative unit for that group and subject to initial performance testing.

(2) A list of the process type and type of air pollution control device on each emission unit.

(3) A schedule indicating when you will conduct an initial performance test for particulate matter for each representative emission unit.

(h) For each work practice standard and operation and maintenance requirement that applies to you where initial compliance is not demonstrated using a performance test, you must demonstrate initial compliance within 30 calendar days after the compliance date that is specified for your affected source in §63.9583.

(i) If you commenced construction or reconstruction of an affected source between December 18, 2002 and October 30, 2003, you must demonstrate initial compliance with either the proposed emission limit or the promulgated emission limit no later than 180 calendar days after October 30, 2003 or no later than 180 calendar days after startup of the source, whichever is later, according to §63.7(a)(2)(ix).

(j) If you commenced construction or reconstruction of an affected source between December 18, 2002 and October 30, 2003, and you chose to comply with the proposed emission limit when demonstrating initial compliance, you must conduct a second performance test to demonstrate compliance with the promulgated emission limit by 3 years and 180 calendar days after October 30, 2003, or after startup of the source, whichever is later, according to §63.7(a)(2)(ix).

(k) For each indurating furnace, you must demonstrate initial compliance with the mercury emission limits in table 2 to this subpart in accordance with the procedures specified in either paragraph (k)(1) or (2) of this section.

(1) Complete an initial performance test on all stacks associated with each indurating furnace no later than 180 calendar days after the compliance date specified in § 63.9583(f). Performance tests conducted between March 6, 2024 and 180 days after the corresponding compliance date can be used for initial compliance demonstration, provided the tests meet the initial performance testing requirements of this subpart. For an indurating furnace with multiple stacks, the performance tests for all stacks must be completed within 7 calendar days of commencement of the performance tests, to the extent practicable, and the indurating furnace and associated control device (where applicable) operating characteristics must remain representative and consistent for the duration of the stack tests. If you determine that the performance tests cannot be completed within 7 calendar days, the Administrator must be notified within 24 hours of making that determination.

(2) You may use a 30-day rolling average of the 1-hour arithmetic average CEMS data. You must conduct a performance evaluation of each CEMS within 180 days of installation of the monitoring system. The initial performance evaluation must be conducted prior to collecting CEMS data that will be used for the initial compliance demonstration.

(l) For each indurating furnace, you must demonstrate initial compliance with the emission limits in table 3 to this subpart by conducting initial performance tests for hydrogen chloride and hydrogen fluoride on all stacks associated with each indurating furnace. Initial performance tests must be completed no later than 180 calendar days after the compliance date specified in § 63.9583(f). Performance tests conducted between March 6, 2024 and 180 days after the corresponding compliance date can be used for initial compliance demonstration, provided the tests meet the initial performance testing requirements of this subpart. For an indurating furnace with multiple stacks, the performance tests for all stacks must be completed within 7 calendar days of commencement of the performance tests, to the extent practicable, and the indurating furnace and associated control device (where applicable) operating characteristics must remain representative and consistent for the duration of the stack tests. If you determine that the performance tests cannot be conducted within 7 calendar days, the Administrator must be notified within 24 hours of making that determination.

§63.9621 What test methods and other procedures must I use to demonstrate initial compliance with the emission limits?

(a) On or before January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, you must conduct each performance test that applies to your affected source according to the requirements in § 63.7(e)(1) and paragraphs (b) and (c) of this section. After January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, and after July 28, 2020, or upon start-up, whichever date is later, for affected sources that commenced construction or reconstruction after September 25, 2019, you must conduct each performance test that applies to your affected source, including the initial performance tests for mercury required in § 63.9620(k)(1) and the initial performance tests for hydrogen chloride and hydrogen fluoride required in § 63.9620(l), under normal operating conditions of the affected source. The owner or operator may not conduct performance tests during periods of malfunction. The owner or operator must record the process information that is necessary to document operating conditions during the test and include in such record an explanation to support that such conditions represent normal operation. Upon request, the owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests. You must also conduct each performance test that applies to your affected source according to the requirements in paragraphs (b) and (c) of this section. (b) For each ore crushing and handling affected source and each finished pellet handling affected source, you must determine compliance with the applicable emission limit for particulate matter in Table 1 to this subpart by following the test methods and procedures in paragraphs (b)(1) through (3) of this section.

(1) Except as provided in § 63.9620(e), determine the concentration of particulate matter in the stack gas for each emission unit according to the test methods listed in paragraphs (b)(1)(i) through (v) of this section.

- (i) EPA Method 1 or 1A in appendix A-1 to part 60 of this chapter to select sampling port locations and the number of traverse points. Sampling ports must be located at the outlet of the control device and prior to any releases to the atmosphere.
 - (ii) EPA Method 2, 2A, 2C, 2D, or 2F in appendix A-1 to part 60 of this chapter or EPA Method 2G in appendix A-2 to part 60 of this chapter, as applicable, to determine the volumetric flow rate of the stack gas.
 - (iii) EPA Method 3A or 3B in appendix A-2 to part 60 of this chapter to determine the dry molecular weight of the stack gas. The voluntary consensus standard ANSI/ASME PTC 19.10-1981 (incorporated by reference-see §63.14) may be used as an alternative to the manual procedures (but not instrumental procedures) in EPA Method 3B. (iv) EPA Method 4 in appendix A-3 to part 60 of this chapter to determine the moisture content of the stack gas.
 - (iv) EPA Method 4 in appendix A-3 to part 60 of this chapter to determine the moisture content of the stack gas.
 - (v) EPA Method 5 or 5D in appendix A-3 to part 60 of this chapter or EPA Method 17 in appendix A-6 to part 60 of this chapter to determine the concentration of particulate matter.
- (2) Each EPA Method 5, 5D, or 17 performance test must consist of three separate runs. Each run must be conducted for a minimum of 1 hour. If any measurement result is reported as below the method detection limit, use the method detection limit for that value when calculating the average particulate matter concentration. The average particulate matter concentration from the three runs will be used to determine compliance, as shown in Equation 1 of this section.

$$C_i = \frac{C_1 + C_2 + C_3}{3} \quad (Eq. 1)$$

Where:

C_i = Average particulate matter concentration for emission unit, grains per dry standard cubic foot, (gr/dscf);

C_1 = Particulate matter concentration for run 1 corresponding to emission unit, gr/dscf;

C_2 = Particulate matter concentration for run 2 corresponding to emission unit, gr/dscf; and

C_3 = Particulate matter concentration for run 3 corresponding to emission unit, gr/dscf.

(3) For each ore crushing and handling affected source and each finished pellet handling affected source, you must determine the flow-weighted mean concentration of particulate matter emissions from all emission units in each affected source following the procedure in paragraph (b)(3)(i) or (ii) of this section.

(i) If an initial performance test is conducted on all emission units within an affected source, calculate the flow-weighted mean concentration of particulate matter emissions from the affected source using Equation 2 of this section.

$$C_a = \frac{\sum_{i=1}^n (C_i * Q_i)}{\sum_{i=1}^n Q_i} \quad (Eq. 2)$$

Where:

C_a = Flow-weighted mean concentration of particulate matter for all emission units within affected source, (gr/dscf);

C_i = Average particulate matter concentration measured during the performance test from emission unit "i" in affected source, as determined using Equation 1 of this section, gr/dscf;

Q_i = Average volumetric flow rate of stack gas measured during the performance test from emission unit "i" in affected source, dscf/hr; and

n = Number of emission units in affected source.

(ii) If you are grouping similar emission units together in accordance with §63.9620(e), you must follow the procedures in paragraphs (b)(3)(ii)(A) through (C) of this section.

(A) Assign the average particulate matter concentration measured from the representative unit, as determined from Equation 1 of this section, to each emission unit within the corresponding group of similar units.

(B) Establish the maximum operating volumetric flow rate of exhaust gas from each emission unit within each group of similar units.

(C) Using the data from paragraphs (b)(3)(ii)(A) and (B) of this section, calculate the flow-weighted mean concentration of particulate matter emissions from the affected source using Equation 3 of this section.

$$C_a = \frac{\sum_{k=1}^m (C_k * Q_k)}{\sum_{k=1}^m Q_k} \quad (Eq. 3)$$

Where:

C_a = Flow-weighted mean concentration of particulate matter for all emission units within affected source, gr/dscf;

C_k = Average particulate matter concentration measured during the performance test from the representative emission unit in group "k" of affected source "a," as determined using Equation 1 of this section, gr/dscf;

Q_k = Sum of the maximum operating volumetric flow rates of stack gas from all similar emission units within group "k" of affected source, dscf/hr; and

m = Number of similar emission unit groups in affected source.

(c) For each ore dryer affected source and each indurating furnace affected source, you must determine compliance with the applicable emission limit for particulate matter in table 1 to this subpart by following the test methods and procedures in paragraphs (c)(1) through (2) of this section. (1) Determine the concentration of particulate matter for each stack according to the test methods listed in paragraphs (c)(1)(i) through (v) of this section.

(i) EPA Method 1 or 1A in appendix A-1 to part 60 of this chapter to select sampling port locations and the number of traverse points. Sampling ports must be located at the outlet of the control device and prior to any releases to the atmosphere.

(ii) EPA Method 2, 2A, 2C, 2D, or 2F in appendix A-1 to part 60 of this chapter or EPA Method 2G in appendix A-2 to part 60 of this chapter, as applicable, to determine the volumetric flow rate of the stack gas.

(iii) EPA Method 3A or 3B in appendix A-2 to part 60 of this chapter to determine the dry molecular weight of the stack gas. The voluntary consensus standard ANSI/ASME PTC 19.10-1981 (incorporated by reference-see §63.14) may be used as an alternative to the manual procedures (but not instrumental procedures) in EPA Method 3B.

(iv) EPA Method 4 in appendix A-3 to part 60 of this chapter to determine the moisture content of the stack gas.

(v) EPA Method 5 or 5D in appendix A-3 to part 60 of this chapter to determine the concentration of particulate matter.

(2) Each EPA Method 5 or 5D performance test must consist of three separate runs. Each run must be conducted for a minimum of 1 hour. If any measurement result is reported as below the method detection limit, use the method detection limit for that value when calculating the average particulate matter concentration. The average particulate matter concentration from the three runs will be used to determine compliance, as shown in Equation 1 of this section.

(3) For each ore dryer and each indurating furnace with multiple stacks, calculate the flow-weighted mean concentration of particulate matter emissions using Equation 4 of this section.

$$C_b = \frac{\sum_{j=1}^n (C_j * Q_j)}{\sum_{j=1}^n Q_j} \quad (Eq. 4)$$

Where:

C_b = Flow-weighted mean concentration of particulate matter for all stacks associated with affected source, gr/dscf;

C_j = Average particulate matter concentration measured during the performance test from stack "j" in affected source, as determined using Equation 1 of this section, gr/dscf;

Q_j = Average volumetric flow rate of stack gas measured during the performance test from stack "j" in affected source, dscf/hr;

n = Number of stacks associated with affected source.

(d) For each indurating furnace subject to the initial performance testing under § 63.9620(k)(1) or (l), you must determine compliance with the applicable emission limits for mercury, hydrogen chloride and hydrogen fluoride in tables 2 and 3 to this subpart by following the test methods and procedures in paragraphs (d)(1) through (9) of this section. You are not required to complete the initial performance test for mercury emissions when you are using a CEMS in accordance with paragraph (e) of this section.

(1) The furnace must be operated at or above 90 percent of capacity throughout the duration of the performance testing. If testing cannot be performed at or above 90 percent of capacity, you must provide an explanation for the lower production rate in your performance test plan. The lower production rate must be approved by the Administrator prior to beginning performance testing. For indurating furnaces that comply with the mercury emissions limit in table 2 to this subpart by adjusting the activated carbon injection rate based on the taconite pellet production rate, you must complete the performance testing for mercury in accordance with the provisions in § 63.9634(n).

(2) Use the methods specified in paragraphs (c)(1)(i) through (iv) of this section to select sampling port locations and the number of traverse points and to determine the volumetric flow rate, dry molecular weight, and moisture content of the stack gas.

(3) Determine the concentration of mercury for each stack using Method 29 or Method 30B in [40 CFR part 60, appendix A](#), or the voluntary consensus standard ASTM D6784–16 (incorporated by reference, see § 63.14). For Method 29 and ASTM D6784–16, the sample volume must be at least 1.7 dry standard cubic meters (dscm) (60 dry standard cubic feet) per run. For Method 30B, each test run must be at least one hour in duration.

(4) Determine the concentration of hydrogen chloride and hydrogen fluoride for each stack using Method 26A in [40 CFR part 60, appendix A](#). Each test must consist of three separate runs. The minimum sample volume must be at least 2 dscm per run.

(5) During each stack test run, determine the weight of taconite pellets produced and calculate the emissions rate of each pollutant in pounds of pollutant per long ton (lb/LT) of pellets produced for each test run. The weight of taconite pellets produced must be determined by measurement using weigh hoppers, belt weigh feeders, or weighed quantities in shipments, or calculated using the bulk density and volume measurements. If any measurement result for any pollutant is reported as below the method detection limit, use the method detection limit as the measured emissions level for that pollutant when calculating the emission rate. If the furnace has more than one stack, calculate the total emissions rate for each test run by summing the emissions across all stacks, as shown in Equation 4.

$$E_{f,i} = \sum_{s=1}^n \frac{C_s \times Q_s}{P_f} \quad (Eq. 4)$$

Where:

$E_{f,i}$ = Emissions rate for test run “i” for all emission stacks on indurating furnace “f”, lb/LT of pellets produced,

C_s = Emission rate for stack “s” measured during test run “i” on indurating furnace “f”, lb/dscf,

Q_s = Average volumetric flow rate of stack gas measured at stack "s" during test run "i" on indurating furnace "f", dscf/hour;

P_f = Pellets produced in indurating furnace "f" during the stack test, LT; and

n = Number of emissions stacks on furnace "f".

(6) Calculate the average emissions rate for each furnace using the three test runs, as show in Equation 5 of this section.

$$E_f = \frac{E_1 + E_2 + E_3}{3} \quad (Eq. 5)$$

Where:

E_f = Average emission rate for indurating furnace "f", lb/LT of pellets produced,

E_1 = Emissions rate for run 1 for indurating furnace "f", lb/LT of pellets produced,

E_2 = Emissions rate for run 2 for indurating furnace "f", lb/LT of pellets produced, and

E_3 = Emissions rate for run 3 for indurating furnace "f", lb/LT of pellets produced.

(7) For each indurating furnace constructed or reconstructed on or after May 15, 2023, determine compliance with the applicable mercury emission limit in table 2 to this subpart by calculating the average emissions rate from the three test runs performed on the furnace using Equations 4 and 5 of this section.

(8) For each indurating furnace constructed or reconstructed before May 15, 2023, you must determine compliance with the applicable mercury emission limit in accordance with the procedures specified in either paragraph (d)(8)(i) or (ii) of this section.

(i) Determine compliance with the mercury limit for individual furnaces in table 2 to this subpart by calculating the average mercury emissions rate for each affected indurating furnace using Equations 4 and 5 of this section, or

(ii) Determine compliance with the mercury limit for groups of indurating furnaces in table 2 to this subpart in accordance with the method in § 63.9623(d).

(9) Determine compliance with the applicable hydrogen chloride and hydrogen fluoride emission limits in table 3 to this subpart by calculating the average emissions rate for each indurating furnace for the three test runs performed on the furnace using Equations 4 and 5 of this section.

(e) For each indurating furnace using mercury CEMS to demonstrate compliance with the applicable emission limits for mercury, you must determine compliance with the applicable mercury limit in table 2 to this subpart by using a 30-day rolling average of the 1-hour arithmetic average CEMS data, including CEMS data during startup and shutdown as defined in this subpart. The mercury CEMS must be installed, calibrated, maintained, and operated as accordance with the requirements in § 63.9631(j).

§63.9622 What test methods and other procedures must I use to establish and demonstrate initial compliance with the operating limits?

(a) For wet scrubbers subject to performance testing in § 63.9620 and operating limits for pressure drop and scrubber water flow rate in § 63.9590(b)(1), you must establish site-specific operating limits according to the procedures in paragraphs (a)(1) through (3) of this section.

(1) Using the CPMS required in § 63.9631(b), measure and record the pressure drop and scrubber water flow rate every 15 minutes during each run of the particulate matter performance test.

(2) Calculate and record the average pressure drop and scrubber water flow rate for each individual test run. Your operating limits are established as the lowest average pressure drop and the lowest average scrubber water flow rate corresponding to any of the three test runs, except as specified in paragraph (g)(2) of this section.

(3) If a rod-deck venturi scrubber is applied to an indurating furnace to meet any particulate matter emission limit in table 1 to this subpart, you may establish a lower average pressure drop operating limit by using historical average pressure drop data from a certified performance test completed on or after December 18, 2002 instead of using the average pressure drop value determined during the initial performance test, as specified in paragraph (a)(2) of this section. If historical average pressure drop data are used to establish an operating limit (*i.e.*, using data from a certified performance test conducted prior to the promulgation date of the final rule), then the average particulate matter concentration corresponding to the historical performance test must be at or below the applicable indurating furnace emission limit, as listed in table 1 to this subpart.

(b) On or before January 28, 2022, for affected sources that commenced construction or reconstruction on or before September 25, 2019, for dynamic wet scrubbers subject to performance testing in § 63.9620 and operating limits for scrubber water flow rate and either fan amperage or pressure drop in § 63.9590(b)(2), you must establish site-specific operating limits according to the procedures in paragraphs (b)(1) and (2) of this section. After January 28, 2022, for affected sources that commenced construction or reconstruction on or before September 25, 2019, and after July 28, 2020, or upon start-up, which ever date is later, for affected sources that commenced construction or reconstruction after September 25, 2019, for dynamic wet scrubbers subject to performance testing in § 63.9620 and operating limits for scrubber water flow rate and fan amperage in § 63.9590(b)(2), you must establish site-specific operating limits according to the procedures in paragraphs (b)(1) and (2) of this section.

(1) On or before January 28, 2022, for affected sources that commenced construction or reconstruction on or before September 25, 2019, using the CPMS required in § 63.9631(b), measure and record the scrubber water flow rate and either the fan amperage or pressure drop every 15 minutes during each run of the particulate matter performance test. After January 28, 2022, for affected sources that commenced construction or reconstruction on or before September 25, 2019, and after July 28, 2020, or upon start-up, which ever date is later, for affected sources that commenced construction or reconstruction after September 25, 2019, using the CPMS required in § 63.9631(b), measure and record the scrubber water flow rate and the fan amperage every 15 minutes during each run of the particulate matter performance test.

(2) On or before January 28, 2022, for affected sources that commenced construction or reconstruction on or before September 25, 2019, calculate and record the average scrubber water flow rate and either the average fan amperage or the average pressure drop for each individual test run. Your operating limits are established as the lowest average scrubber water flow rate and either the

lowest average fan amperage or pressure drop value corresponding to any of the three test runs. After January 28, 2022, for affected sources that commenced construction or reconstruction on or before September 25, 2019, and after July 28, 2020, or upon start-up, whichever date is later, for affected sources that commenced construction or reconstruction after September 25, 2019, calculate and record the average scrubber water flow rate and the average fan amperage for each individual test run. Your operating limits are established as the lowest average scrubber water flow rate and the lowest average fan amperage value corresponding to any of the three test runs, except as specified in paragraph (g)(2) of this section.

(c) For a dry ESP subject to performance testing in § 63.9620 and operating limits in § 63.9590(b)(3), you must establish a site-specific operating limit according to the procedures in paragraphs (c)(1) or (2) of this section.

(1) If the operating limit for your dry ESP is a 6-minute average opacity of emissions value, then you must follow the requirements in paragraphs (c)(1)(i) through (iii) of this section.

(i) Using the continuous opacity monitoring system (COMS) required in § 63.9631(d)(1), measure and record the opacity of emissions from each control device stack during the particulate matter performance test.

(ii) Compute and record the 6-minute opacity averages from 24 or more data points equally spaced over each 6-minute period (e.g., at 15-second intervals) during the test runs.

(iii) Using the opacity measurements from a performance test that meets the emission limit, determine the opacity value corresponding to the 99 percent upper confidence level of a normal distribution of the 6-minute opacity averages.

(2) If the operating limit for your dry ESP is the daily average secondary voltage and daily average secondary current for each field, then you must follow the requirements in paragraphs (c)(2)(i) and (ii) of this section.

(i) Using the CPMS required in § 63.9631(d)(2), measure and record the secondary voltage and secondary current for each dry ESP field every 15 minutes during each run of the particulate matter performance test.

(ii) Calculate and record the average secondary voltage and secondary current for each dry ESP field for each individual test run. Your operating limits are established as the lowest average secondary voltage and secondary current value for each dry ESP field corresponding to any of the three test runs.

(d) For a wet ESP subject to performance testing in § 63.9620 and operating limit in § 63.9590(b)(4), you must establish a site-specific operating limit according to the procedures in paragraphs (d)(1) and (2) of this section.

(1) Using the CPMS required in § 63.9631(e), measure and record the parametric values in paragraphs (d)(1)(i) through (iii) of this section for each wet ESP field every 15 minutes during each run of the particulate matter performance test.

(i) Secondary voltage;

(ii) Water flow rate; and

(iii) Stack outlet temperature.

(2) For each individual test run, calculate and record the average value for each operating parameter in paragraphs (d)(1)(i) through (iii) of this section for each wet ESP field. Your operating limits are established as the lowest average value for each operating parameter of secondary voltage and water flow rate corresponding to any of the three test runs, and the highest average value for each stack outlet temperature corresponding to any of the three test runs.

(e) If you use an air pollution control device other than a wet scrubber, dynamic wet scrubber, dry ESP, wet ESP, or baghouse, and it is subject to performance testing in § 63.9620, you must submit a site-specific monitoring plan in accordance with § 63.9631(f). The site-specific monitoring plan must include the site-specific procedures for demonstrating initial and continuous compliance with the corresponding operating limits.

(f) You may change the operating limits for any air pollution control device as long as you meet the requirements in paragraphs (f)(1) through (3) of this section.

(1) Submit a written notification to the Administrator of your request to conduct a new performance test to revise the operating limit.

(2) Conduct a performance test to demonstrate compliance with the applicable emission limitation in table 1 to this subpart.

(3) Establish revised operating limits according to the applicable procedures in paragraphs (a) through (e) of this section.

(g) For wet scrubbers and wet ESPs subject to performance testing in § 63.9620(l) and operating limits for scrubber water flow rate and pH in § 63.9590(b)(5), you must establish site-specific operating limits according to the procedures in paragraphs (g)(1) and (2) of this section.

(1) Using the CPMS required in § 63.9631(b), measure and record the scrubber water flow rate and pH of the scrubber water effluent every 15 minutes during each run of the performance test for hydrogen chloride and hydrogen fluoride.

(2) Calculate and record the average scrubber water flow rate and average pH of the scrubber water effluent for each individual test run. Your operating limit must be established as the average scrubber water flow rate and average pH of the scrubber water of the three test runs. If a higher average flow rate is measured during the most recent PM performance test, the operating limit for the daily average scrubber water flow rate is the average scrubber water flow rate measured during the most recent PM performance test. If a higher average flow rate is measured during the most recent HCl and HF performance test, the operating limit for the daily average scrubber water flow rate is the average scrubber water flow rate measured during the most recent HCl and HF performance test.

(h) For ACI systems subject to performance testing in § 63.9620(k)(1) and operating limits for activated carbon sorbent injection rate and carrier gas flow rate in § 63.9590(b)(6), you must establish site-specific operating limits according to the procedures in paragraphs (h)(1) and (2) of this section.

(1) Using the CPMS required in § 63.9631(b), measure and record the activated carbon injection rate and carrier gas flow rate every 15 minutes during each run of the performance test for mercury.

(2) Calculate and record the average activated carbon injection rate and carrier gas flow rate for each individual test run. Your operating limit must be established as the highest activated carbon injection rate and carrier gas flow rate of the three test runs.

(i) For DSI systems subject to performance testing in § 63.9620(l) and operating limits for sorbent injection rate and carrier gas flow rate in § 63.9590(b)(7), you must establish site-specific operating limits according to the procedures in paragraphs (i)(1) and (2) of this section.

(1) Using the CPMS required in § 63.9631(b), measure and record the sorbent injection rate and carrier gas flow rate every 15 minutes during each run of the performance test for hydrogen chloride and hydrogen fluoride.

(2) Calculate and record the average sorbent injection rate and carrier gas flow rate for each individual test run. Your operating limit must be established as the highest average sorbent injection rate and carrier gas flow rate of the three test runs.

§63.9623 How do I demonstrate initial compliance with the emission limitations that apply to me?

(a) For each affected source subject to an emission limit in tables 1 through 3 to this subpart, you must demonstrate initial compliance by meeting the emission limit requirements in paragraphs (a)(1) through (8) of this section by the compliance date specified in § 63.9583.

(1) For ore crushing and handling, the flow-weighted mean concentration of particulate matter, determined according to the procedures in §§ 63.9620(a) and 63.9621(b), must not exceed the emission limits in table 1 to this subpart.

(2) For indurating furnaces, the flow-weighted mean concentration of particulate matter, determined according to the procedures in §§ 63.9620(b) and 63.9621(c), must not exceed the emission limits in table 1 to this subpart.

(3) For finished pellet handling, the flow-weighted mean concentration of particulate matter, determined according to the procedures in §§ 63.9620(c) and 63.9621(b), must not exceed the emission limits in table 1 to this subpart.

(4) For ore dryers, the flow-weighted mean concentration of particulate matter, determined according to the procedures in §§ 63.9620(d) and 63.9621(c), must not exceed the emission limits in table 1 to this subpart.

(5) For indurating furnaces not using emissions averaging, the mercury emissions determined according to the procedures in §§ 63.9620(k)(1) or (2) and 63.9621(d), must not exceed the applicable emission limit in table 2 to this subpart.

(6) For indurating furnaces that comply with the mercury emissions limit using emissions averaging, the average mercury emissions determined according to the procedures in §§ 63.9620(k)(1) or (2), 63.9621(d) and 63.9634(m), must not exceed the applicable emission limit in table 2 to this subpart.

(7) For indurating furnaces that comply with the mercury emissions limit by adjusting the activated carbon injection rate based on the taconite pellet production rate, the mercury emissions determined according to the procedures in §§ 63.9620(k)(1) or (2), 63.9621(d) or (e), and 63.9634(n), must not exceed the applicable emission limit in table 2 to this subpart.

(8) For indurating furnaces, the hydrogen chloride and hydrogen fluoride emissions determined according to the procedures in §§ 63.9620(l) and 63.9621(d), must not exceed the applicable emission limit in table 3 to this subpart.

(b) For each affected source subject to an emission limit in table 1 to this subpart, you must demonstrate initial compliance by meeting the operating limit requirements in paragraphs (b)(1) through (5) of this section.

(1) For each wet scrubber subject to performance testing in § 63.9620 and operating limits for pressure drop and scrubber water flow rate in § 63.9590(b)(1), you have established appropriate site-specific operating limits and have a record of the pressure drop and scrubber water flow rate measured during the performance test in accordance with § 63.9622(a).

(2) On or before January 28, 2022, for affected sources that commenced construction or reconstruction on or before September 25, 2019, for each dynamic wet scrubber subject to performance testing in § 63.9620 and operating limits for scrubber water flow rate and either fan amperage or pressure drop in § 63.9590(b)(2), you have established appropriate site-specific operating limits and have a record of the scrubber water flow rate and either the fan amperage or pressure drop value, measured during the performance test in accordance with § 63.9622(b). After January 28, 2022, for affected sources that commenced construction or reconstruction on or before September 25, 2019, and after July 28, 2020, or upon start-up, which ever date is later, for affected sources that commenced construction or reconstruction after September 25, 2019, for each dynamic wet scrubber subject to performance testing in § 63.9620 and operating limits for scrubber water flow rate and fan amperage in § 63.9590(b)(2), you have established appropriate site-specific operating limits and have a record of the scrubber water flow rate and the fan amperage value, measured during the performance test in accordance with § 63.9622(b).

(3) For each dry ESP subject to performance testing in § 63.9620 and one of the operating limits in § 63.9590(b)(3), you must meet the requirements in paragraph (b)(3)(i) or (ii) of this section.

(i) If you are subject to the operating limit for opacity in § 63.9590(b)(3)(i), you have established appropriate site-specific operating limits and have a record of the opacity measured during the performance test in accordance with § 63.9622(c)(1).

(ii) If you are subject to the operating limit for secondary voltage and secondary current in § 63.9590(b)(3)(ii), you have established appropriate site-specific operating limits and have a record of the secondary voltage and secondary current measured during the performance test in accordance with § 63.9622(c)(2).

(4) For each wet ESP subject to performance testing in § 63.9620 and operating limits for secondary voltage, water flow rate, and stack outlet temperature in § 63.9590(b)(4), you have established appropriate site-specific operating limits and have a record of the secondary voltage, water flow rate, and stack outlet temperature measured during the performance test in accordance with § 63.9622(d).

(5) For other air pollution control devices subject to performance testing in § 63.9620 and operating limits in accordance with § 63.9590(b)(8), you have submitted a site-specific monitoring plan in accordance with § 63.9631(f) and have a record of the site-specific operating limits as measured during the performance test in accordance with § 63.9622(e).

(c) Except as specified in paragraph (e) of this section, you must demonstrate initial compliance with the emission limits in tables 2 and 3 to this subpart, by meeting the operating limit requirements in paragraphs (c)(1) through (3) of this section.

(1) For each wet scrubber and wet ESP subject to performance testing in § 63.9620(k) and operating limits for scrubber water flow rate and pH in § 63.9590(b)(5), you have established appropriate site-specific operating limits and have a record of the scrubber water flow rate and pH measured during the performance test in accordance with § 63.9622(g).

(2) For each ACI subject to performance testing in § 63.9620(k) and operating limits for activated carbon injection rate and carrier gas flow rate in § 63.9590(b)(6), you have established appropriate site-specific operating limits and have a record of the activated carbon injection rate and carrier gas flow rate measured during the performance test in accordance with § 63.9622(i). (3) For each DSI subject to performance testing in § 63.9620(k) and operating limits for sorbent injection rate and carrier gas flow rate in § 63.9590(b)(7), you have established appropriate site-specific operating limit and have a record of the sorbent injection rate and carrier gas flow rate measured during the performance test in accordance with § 63.9622(h).

(d) If you elect to comply with the mercury limit in table 2 to this subpart using emissions averaging for indurating furnaces constructed or reconstructed before May 15, 2023, you must comply with the requirements in paragraphs (d)(1) through (4) of this section.

(1) Before submitting the implementation plan required in paragraph (d)(3) of this section, you must complete the mercury stack testing required in § 63.9620(k)(1) or install, calibrate, and operate a mercury CEMS pursuant to § 63.9620(k)(2) and paragraph (e) of this section for all indurating furnaces you wish to include in the mercury emission average.

(2) You must develop and submit to the applicable regulatory authority for review and approval, an implementation plan for mercury emission averaging no later than 180 days before the date you intend to demonstrate compliance using the emission averaging option. You must include the information contained in paragraphs (d)(2)(i) through (iii) of this section in your implementation plan.

(i) Identification of all indurating furnaces in the averaging group, including the typical taconite pellet production rate, control technology installed, and types of fuel(s) that will be burned.

(ii) The mercury emission rate for each furnace for each of the fuels identified in paragraph (d)(2)(i) of this section.

(iii) The date on which you are requesting emission averaging to commence.

(3) The regulatory authority shall review and approve or disapprove the plan according to the following criteria:

(i) Whether the content of the plan includes all the information specified in paragraph (d)(2) of this section, and

(ii) Whether the plan presents sufficient information to determine that compliance will be achieved and maintained.

(4) The applicable regulatory authority shall not approve an emission averaging implementation plan containing any of the following provisions:

(i) Averaging that includes indurating furnaces constructed or reconstructed on or after May 15, 2023, or

(ii) Averaging between indurating furnaces located at different facilities.

(e) If you elect to demonstrate compliance with the mercury limit in table 2 to this subpart using a mercury CEMS, you must calculate the 30-day rolling average of 1-hour arithmetic average emission concentrations, including CEMS data during startup and shutdown, calculated using equation 19–19 in section 12.4.1 of EPA Reference Method 19 at appendix A–7 of [40 CFR part 60](#). The 1-hour arithmetic averages for CEMS must be calculated using the data points required under § 63.8(c)(4)(ii).

(f) For each emission limitation and operating limit that applies to you, you must submit a notification of compliance status according to § 63.9640(e)

§63.9624 How do I demonstrate initial compliance with the work practice standards that apply to me?

You must demonstrate initial compliance with the work practice standards by meeting the requirements in paragraphs (a) through (c) of this section.

(a) You must prepare a fugitive dust emissions control plan in accordance with the requirements in §63.9591.

(b) You must submit to the Administrator the fugitive dust emissions control plan in accordance with the requirements in §63.9591.

(c) You must implement each control practice according to the procedures specified in your fugitive dust emissions control plan.

§63.9625 How do I demonstrate initial compliance with the operation and maintenance requirements that apply to me?

For each air pollution control device subject to operating limits in §63.9590(b), you have demonstrated initial compliance with the operation and maintenance requirements if you meet all of the requirements in paragraphs (a) through (d) of this section.

(a) You have prepared the operation and maintenance plan for air pollution control devices in accordance with §63.9600(b).

(b) You have operated each air pollution control device according to the procedures in the operation and maintenance plan.

(c) You have submitted a notification of compliance status according to the requirements in §63.9640(e).

(d) You have prepared a site-specific monitoring plan in accordance with §63.9632(b).

Continuous Compliance Requirements

§63.9630 When must I conduct subsequent performance tests?

(a) You must conduct subsequent performance tests to demonstrate continued compliance with the ore crushing and handling emission limits in Table 1 to this subpart according to the schedule developed by your permitting authority and shown in your title V permit. If a title V permit has not been issued, you

must submit a testing plan and schedule, containing the information specified in paragraph (e) of this section, to the permitting authority for approval.

(b) You must conduct subsequent performance tests on all stacks associated with indurating furnaces to demonstrate continued compliance with the indurating furnace emission limits in tables 1 through 3 to this subpart according to the schedule developed by your permitting authority and shown in your title V permit, but no less frequent than twice per 5-year permit term. If a title V permit has not been issued, you must submit a testing plan and schedule, containing the information specified in paragraph (e) of this section, to the permitting authority for approval. For an indurating furnace with multiple stacks, the performance tests for all stacks must be conducted within 7 calendar days of commencement of the performance tests, to the extent practicable, and the indurating furnace and associated control device (where applicable) operating characteristics must remain representative and consistent for the duration of the stack tests. If you determine that the performance tests cannot be completed within 7 calendar days, the Administrator must be notified within 24 hours of making that determination. Performance testing for mercury is not required for furnaces using CEMS to demonstrate compliance with the mercury emission limits in table 2 to this subpart.

(c) You must conduct subsequent performance tests to demonstrate continued compliance with the finished pellet handling emission limits in Table 1 to this subpart according to the schedule developed by your permitting authority and shown in your title V permit. If a title V permit has not been issued, you must submit a testing plan and schedule, containing the information specified in paragraph (e) of this section, to the permitting authority for approval.

(d) You must conduct subsequent performance tests on all stacks associated with ore dryers to demonstrate continued compliance with the ore dryer emission limits in Table 1 to this subpart according to the schedule developed by your permitting authority and shown in your title V permit. If a title V permit has not been issued, you must submit a testing plan and schedule, containing the information specified in paragraph (e) of this section, to the permitting authority for approval. For ore dryers with multiple stacks, the performance tests for all stacks associated with an ore dryer must be conducted within a reasonable period of time, such that the ore dryer operating characteristics remain representative for the duration of the stack tests.

(e) If your plant does not have a title V permit, you must submit a testing plan for subsequent performance tests as required in paragraphs (a) through (d) of this section. This testing plan must be submitted to the Administrator on or before the compliance date that is specified in §63.9583. The testing plan must contain the information specified in paragraphs (e)(1) and (2) of this section. You must maintain a current copy of the testing plan onsite, and it must be available for inspection upon request. You must keep the plan for the life of the affected source or until the affected source is no longer subject to the requirements of this subpart.

(1) A list of all emission units.

(2) A schedule indicating when you will conduct subsequent performance tests for particulate matter, mercury, hydrogen chloride and hydrogen fluoride for each of the emission units.

§63.9631 What are my monitoring requirements?

(a) On or before January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, for each baghouse applied to meet any particulate matter emission

limit in Table 1 to this subpart, you must install, operate, and maintain a bag leak detection system to monitor the relative change in particulate matter loadings according to the requirements in §63.9632(a), and conduct inspections at their specified frequencies according to the requirements in paragraphs (a)(1) through (8) of this section. After January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, and after July 28, 2020, or upon start-up, whichever date is later, for affected sources that commenced construction or reconstruction after September 25, 2019, for each baghouse applied to meet any particulate matter emission limit in Table 1 to this subpart, you must install, operate, and maintain a bag leak detection system to monitor the relative change in particulate matter loadings according to the requirements in §63.9632(a), and conduct inspections at their specified frequencies according to the requirements in paragraphs (a)(1) through (6) and (8) of this section. For each baghouse applied to meet any particulate matter emission limit in Table 1 to this subpart that is not required by §63.9632(a) to be equipped with a bag leak detection system, you must conduct inspections at their specified frequencies according to the requirements in paragraphs (a)(1) through (8) of this section.

- (1) Monitor the pressure drop across each baghouse cell each day to ensure pressure drop is within the normal operating range.
- (2) Confirm that dust is being removed from hoppers through weekly visual inspections or other means of ensuring the proper functioning of removal mechanisms.
- (3) Check the compressed air supply of pulse-jet baghouses each day.
- (4) Monitor cleaning cycles to ensure proper operation using an appropriate methodology.
- (5) Check bag cleaning mechanisms for proper functioning through monthly visual inspections or equivalent means.
- (6) Make monthly visual checks of bag tension on reverse air and shaker-type baghouses to ensure that bags are not kinked (knead or bent) or lying on their sides. You do not have to make this check for shaker-type baghouses that have self-tensioning (spring-loaded) devices.
- (7) Confirm the physical integrity of the baghouse through quarterly visual inspections of the baghouse interior for air leaks.
- (8) Inspect fans for wear, material buildup, and corrosion through quarterly visual inspections, vibration detectors, or equivalent means.

(b) Except as provided in paragraph (c) of this section, for each wet scrubber subject to the operating limits for pressure drop and scrubber water flow rate in §63.9590(b)(1), you must install, operate, and maintain a CPMS according to the requirements in §63.9632(b) through (e) and monitor the daily average pressure drop and daily average scrubber water flow rate according to the requirements in §63.9633.

(c) On or before January 28, 2022, for affected sources that commenced construction or reconstruction on or before September 25, 2019, for each dynamic wet scrubber subject to the scrubber water flow rate and either the fan amperage or pressure drop operating limits in §63.9590(b)(2), you must install, operate, and maintain a CPMS according to the requirements in §63.9632(b) through (e) and monitor the daily average scrubber water flow rate and either the daily average fan amperage or the daily average pressure drop according to the requirements in §63.9633. After January 28, 2022, for affected sources that commenced construction or reconstruction on or before September 25, 2019, and after July 28,

2020, or upon start-up, whichever date is later, for affected sources that commenced construction or reconstruction after September 25, 2019, for each dynamic wet scrubber subject to the scrubber water flow rate and the fan amperage operating limits in §63.9590(b)(2), you must install, operate, and maintain a CPMS according to the requirements in §63.9632(b) through (e) and monitor the daily average scrubber water flow rate and the daily average fan amperage according to the requirements in §63.9633.

(d) For each dry ESP subject to the operating limits in § 63.9590(b)(3), you must follow the monitoring requirements in paragraph (d)(1) or (2) of this section.

(1) If the operating limit you choose to monitor is the 6-minute average opacity of emissions in accordance with § 63.9590(b)(3)(i), you must install, operate, and maintain a COMS according to the requirements in § 63.9632(f) and monitor the 6-minute average opacity of emissions exiting each control device stack according to the requirements in § 63.9633.

(2) If the operating limit you choose to monitor is average secondary voltage and average secondary current for each dry ESP field in accordance with § 63.9590(b)(3)(ii), you must install, operate, and maintain a CPMS according to the requirements in § 63.9632(b) through (e) and monitor the daily average secondary voltage and daily average secondary current according to the requirements in § 63.9633.

(e) For each wet ESP subject to the operating limits in § 63.9590(b)(4), you must install, operate, and maintain a CPMS according to the requirements in § 63.9632(b) through (e) and monitor the daily average secondary voltage, daily average stack outlet temperature, and daily average water flow rate according to the requirements in § 63.9633.

(f) For each wet scrubber and wet ESP subject to the operating limits in § 63.9590(b)(5), you must install, operate, and maintain a CPMS according to the requirements in § 63.9632(g) and monitor the daily average scrubber water flow rate and pH of the scrubber water effluent.

(g) For each ACI system subject to the operating limits in § 63.9590(b)(6), you must install, operate, and maintain a CPMS according to the requirements in § 63.9632(h) and (i) and monitor the daily average activated carbon injection rate and carrier gas flow rate.

(h) For each DSI system subject to the operating limits in § 63.9590(b)(7), you must install, operate, and maintain a CPMS according to the requirements in § 63.9632(h) and (i) and monitor the daily average sorbent injection rate and carrier gas flow rate.

(i) If you use any air pollution control device other than a baghouse, wet scrubber, dry ESP, wet ESP, DSI, or ACI, you must submit a site-specific monitoring plan that includes the information in paragraphs (i)(1) through (4) of this section. The monitoring plan is subject to approval by the Administrator. You must maintain a current copy of the monitoring plan onsite, and it must be available for inspection upon request. You must keep the plan for the life of the affected source or until the affected source is no longer subject to the requirements of this subpart.

(1) A description of the device.

(2) Test results collected in accordance with § 63.9621 verifying the performance of the device for reducing emissions of particulate matter, mercury, hydrogen chloride, and hydrogen fluoride to the atmosphere to the levels required by this subpart.

- (3) A copy of the operation and maintenance plan required in § 63.9600(b).
- (4) Appropriate operating parameters that will be monitored to maintain continuous compliance with the applicable emission limitation(s).
- (j) If you elect to comply with the mercury limit in table 2 to this subpart using emissions averaging in accordance with an implementation plan approved under the provisions in § 63.9623(d) or you elect to adjust the activated carbon injection rate based on the taconite pellet production rate in accordance with the procedures in § 63.9634(n), you must determine and record the mass of taconite pellets produced each month by each furnace included in the emissions averaging group. The weight of taconite pellets produced must be determined by measurement using weigh hoppers, belt weigh feeders, or weighed quantities in shipments, or calculated using the bulk density and volume measurements.
- (k) If you elect to demonstrate compliance with the mercury emissions limits in table 2 to this subpart using a CEMS to measure mercury emissions, you must comply with the requirements in (k)(1) through (5).
 - (1) Notify the Administrator one month before starting use of the CEMS and notify the Administrator 180-days before ceasing use of the CEMS.
 - (2) Each CEMS must be installed, certified, calibrated, and maintained according to the requirements of performance specifications 6 and 12A of [40 CFR part 60, appendix B](#), and quality assurance procedure 6 of [40 CFR part 60, appendix F](#).
 - (3) Operate the mercury CEMS in accordance with performance specification 12A of [40 CFR part 60, appendix B](#). The duration of the performance test must be 30 operating days. For each day in which the unit operates, you must obtain hourly mercury concentration data, and stack gas volumetric flow rate data.
 - (4) You must complete the initial performance evaluation of the CEMS within 180 days after notifying the Administrator and before starting to use the CEMS data in lieu of performance testing and monitoring operating parameters to demonstrate compliance.
 - (5) Collect CEMS hourly averages for all operating hours on a 30-day rolling average basis. The one-hour arithmetic averages, expressed in units of lb/LT, must be used to calculate 30-day rolling average emissions to determine compliance with the applicable emission limit in table 2 to this subpart.

§63.9632 What are the installation, operation, and maintenance requirements for my monitoring equipment?

- (a) On or before January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, for each negative pressure baghouse or positive pressure baghouse equipped with a stack, applied to meet any particulate emission limit in Table 1 to this subpart, you must install, operate, and maintain a bag leak detection system for each exhaust stack according to the requirements in paragraphs (a)(1) and (2) and (a)(4) through (9) of this section. After January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, and after July 28, 2020, or upon start-up, which ever date is later, for affected sources that commenced construction or reconstruction after September 25, 2019, for each negative pressure baghouse or positive pressure baghouse equipped with a stack, applied to meet any particulate emission limit in Table 1 to this

subpart, you must install, operate, and maintain a bag leak detection system for each exhaust stack according to the requirements in paragraphs (a)(1) through (9) of this section.

- (1) The system must be certified by the manufacturer to be capable of detecting emissions of particulate matter at concentrations of 10 milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less.
- (2) The system must provide output of relative changes in particulate matter loadings.
- (3) The bag leak detection system must be equipped with a device to continuously record the output signal from the sensor.
- (4) The system must be equipped with an alarm that will sound when an increase in relative particulate loadings is detected over the alarm level set point established according to paragraph (a)(5) of this section. The alarm must be located such that it can be heard by the appropriate plant personnel.
- (5) For each bag leak detection system, you must develop and submit to the Administrator for approval, a site-specific monitoring plan that addresses the items identified in paragraphs (a)(5)(i) through (v) of this section. The monitoring plan shall be consistent with the manufacturer's specifications and recommendations contained in the U.S. Environmental Protection Agency (U.S. EPA) guidance document, "Fabric Filter Bag Leak Detection Guidance" (EPA-454/R-98-015) (incorporated by reference—see §63.14). You must operate and maintain the bag leak detection system according to the site-specific monitoring plan at all times. The plan shall describe all of the items in paragraphs (a)(5)(i) through (v) of this section.
 - (i) Installation of the bag leak detection system.
 - (ii) Initial and periodic adjustment of the bag leak detection system including how the alarm set-point will be established.
 - (iii) Operation of the bag leak detection system including quality assurance procedures.
 - (iv) How the bag leak detection system will be maintained including a routine maintenance schedule and spare parts inventory list.
 - (v) How the bag leak detection system output shall be recorded and stored.
- (6) To make the initial adjustment of the system, establish the baseline output by adjusting the sensitivity (range) and the averaging period of the device. Then, establish the alarm set points and the alarm delay time (if applicable).
- (7) Following initial adjustment, do not adjust sensitivity or range, averaging period, alarm set point, or alarm delay time, without approval from the Administrator except as provided for in paragraph (a)(7)(i) of this section. In no event may the sensitivity be increased more than 100 percent or decreased by more than 50 percent over a 365-day period unless such adjustment follows a complete baghouse inspection that demonstrates the baghouse is in good operating condition.
 - (i) Once per quarter, you may adjust the sensitivity or range of the bag leak detection system to account for seasonal effects, including temperature and humidity, according to the procedures identified in the site-specific monitoring plan required under paragraph (a)(5) of this section.
 - (ii) [Reserved]

(8) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.

(9) The bag leak detector sensor must be installed downstream of the baghouse and upstream of any wet scrubber.

(b) For each CPMS required in §63.9631, you must develop and make available for inspection upon request by the permitting authority a site-specific monitoring plan that addresses the requirements in paragraphs (b)(1) through (7) of this section.

(1) Installation of the CPMS sampling probe or other interface at a measurement location relative to each affected emission unit such that the measurement is representative of control of the exhaust emissions (e.g., on or downstream of the last control device).

(2) Performance and equipment specifications for the sample interface, the parametric signal analyzer, and the data collection and reduction system.

(3) On or before January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, performance evaluation procedures and acceptance criteria (e.g., calibrations). After January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, and after July 28, 2020, or upon start-up, which ever date is later, for affected sources that commenced construction or reconstruction after September 25, 2019, performance evaluation procedures, a schedule for performing such procedures, and acceptance criteria (e.g., calibrations), as well as corrective action to be taken if a performance evaluation does not meet the acceptance criteria. If a CPMS calibration fails, the CPMS is considered to be inoperative until you take corrective action and the system passes calibration.

(4) On or before January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, ongoing operation and maintenance procedures in accordance with the general requirements of §63.8(c)(1), (3), (4)(ii), (7), and (8). After January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, and after July 28, 2020, or upon start-up, which ever date is later, for affected sources that commenced construction or reconstruction after September 25, 2019, ongoing operation and maintenance procedures and a schedule for preventative maintenance procedures, in a manner consistent with good air pollution control practices and in accordance with the general requirements of §63.8(c)(1)(ii), (c)(3), (c)(4)(ii), and (c)(7) and (8).

(5) On or before January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, ongoing data quality assurance procedures in accordance with the general requirements of §63.8(d). After January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, and after July 28, 2020, or upon start-up, which ever date is later, for affected sources that commenced construction or reconstruction after September 25, 2019, ongoing data quality assurance procedures in accordance with the general requirements of §63.8(d)(1) and (2). The owner or operator shall keep these written procedures on record for the life of the affected source or until the affected source is no longer subject to the provisions of this part, to be made available for inspection, upon request, by the Administrator. If the performance evaluation plan is revised, the owner or operator shall keep previous (i.e.,

superseded) versions of the performance evaluation plan on record to be made available for inspection, upon request, by the Administrator, for a period of 5 years after each revision to the plan.

(6) On or before January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, ongoing recordkeeping and reporting procedures in accordance with the general requirements of §63.10(c), (e)(1), and (e)(2)(i). After January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, and after July 28, 2020, or upon start-up, which ever date is later, for affected sources that commenced construction or reconstruction after September 25, 2019, ongoing recordkeeping and reporting procedures in accordance with the general requirements of §63.10(c)(1) through (14), (e)(1), and (e)(2)(i).

(7) Corrective action procedures that you will follow in the event an air pollution control device, except for a baghouse, exceeds an established operating limit as required in §63.9600(b)(3).

(c) Unless otherwise specified, each CPMS must meet the requirements in paragraphs (c)(1) and (2) of this section.

(1) Each CPMS must complete a minimum of one cycle of operation for each successive 15-minute period and must have valid data for at least 95 percent of every daily averaging period.

(2) Each CPMS must determine and record the daily average of all recorded readings.

(d) You must conduct a performance evaluation of each CPMS in accordance with your site-specific monitoring plan.

(e) You must operate and maintain the CPMS in continuous operation according to the site-specific monitoring plan.

(f) For each dry ESP subject to the opacity operating limit in § 63.9590(b)(3)(i), you must install, operate, and maintain each COMS according to the requirements in paragraphs (f)(1) through (4) of this section.

(2) On or before January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, you must develop and implement a quality control program for operating and maintaining each COMS according to § 63.8. At a minimum, the quality control program must include a daily calibration drift assessment, quarterly performance audit, and annual zero alignment of each COMS. After January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, and after July 28, 2020, or upon start-up, which ever date is later, for affected sources that commenced construction or reconstruction after September 25, 2019, you must develop and implement a quality control program for operating and maintaining each COMS according to § 63.8(a) and (b), (c)(1)(ii), (c)(2) through (8), (d)(1) and (2), and (e) through (g) and Procedure 3 in appendix F to 40 CFR part 60. At a minimum, the quality control program must include a daily calibration drift assessment, quarterly performance audit, and annual zero alignment of each COMS.

(3) You must operate and maintain each COMS according to §63.8(e) and your quality control program. You must also identify periods the COMS is out of control, including any periods that the COMS fails to pass a daily calibration drift assessment, quarterly performance audit, or annual zero alignment audit.

(4) On or before January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, you must determine and record the 6-minute average opacity for periods during which the COMS is not out of control. After January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, and after July 28, 2020, or upon start-up, whichever date is later, for affected sources that commenced construction or reconstruction after September 25, 2019, you must determine and record the 6-minute average opacity for periods during which the COMS is not out of control. All COMS must complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.

(g) For each pH measurement device, in addition to the requirements in paragraphs (b) through (e) of this section, you must meet the requirements in paragraphs (g)(1) through (4) of this section.

(1) The minimum accuracy of the pH measurement device must be ± 0.2 pH units.

(2) Locate the pH sensor in a position that provides a representative measurement of scrubber effluent pH.

(3) Ensure the sample is properly mixed and representative of the fluid to be measured.

(4) Check the pH meter's calibration on at least two points every 8 hours of process operation.

(h) For each mass flow rate monitor used for measuring the sorbent or activated carbon injection rate, in addition to the requirements in paragraphs (b) through (e) of this section, you must meet the requirements of (h)(1) through (4) of this section.

(1) The minimum accuracy of the mass flow rate monitor must be ± 5 percent over the normal range of flow measured.

(2) Locate the device in a position(s) that provides a representative measurement of the total sorbent injection rate.

(3) Install and calibrate the device in accordance with manufacturer's procedures and specifications.

(4) At least annually, conduct a performance evaluation of the injection rate monitoring system in accordance with your monitoring plan.

(i) For each carrier gas flow rate monitor, in addition to the requirements in paragraphs (b) through (e) of this section, you must meet the requirements of (i)(1) through (4) of this section.

(1) The minimum accuracy of the gas flow rate monitor must be ± 5 percent over the normal range of flow measured or 280 liters per minute (10 cubic feet per minute), whichever is greater.

(2) Locate the device in a position(s) that provides a representative measurement of the carrier gas flow rate.

(3) Install and calibrate the device in accordance with manufacturer's procedures and specifications.

(4) At least annually, conduct a performance evaluation of the carrier gas flow rate monitoring system in accordance with your monitoring plan.

- (a) Except for monitoring malfunctions, out of control periods, associated repairs, and required quality assurance or control activities (including as applicable, calibration checks and required zero and span adjustments), you must monitor continuously (or collect data at all required intervals) at all times an affected source is operating.
- (b) You may not use data recorded during monitoring malfunctions, out of control periods, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emission or operating levels, or to fulfill a minimum data availability requirement. You must use all the data collected during all other periods in assessing compliance.
- (c) A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not considered malfunctions.

§63.9634 How do I demonstrate continuous compliance with the emission limitations that apply to me?

- (a) For each affected source subject to an emission limit in Table 1 to this subpart, you must demonstrate continuous compliance by meeting the requirements in paragraphs (b) through (f) of this section.
- (b) For ore crushing and handling affected sources and finished pellet handling affected sources, you must demonstrate continuous compliance by meeting the requirements in paragraphs (b)(1) through (3) of this section.
 - (1) The flow-weighted mean concentration of particulate matter for all ore crushing and handling emission units and for all finished pellet handling emission units must be maintained at or below the emission limits in Table 1 to this subpart.
 - (2) You must conduct subsequent performance tests for emission units in the ore crushing and handling and finished pellet handling affected sources following the schedule in your title V permit. If a title V permit has not been issued, you must conduct subsequent performance tests according to a testing plan approved by the Administrator or delegated authority.
 - (3) For ore crushing and handling and finished pellet handling emission units not selected for initial performance testing and defined within a group of similar emission units in accordance with §63.9620(e), the site-specific operating limits established for the emission unit selected as representative of a group of similar emission units will be used as the operating limit for each emission unit within the group. The operating limit established for the representative unit must be met by each emission unit within the group.
- (c) For ore dryers and indurating furnaces, you must demonstrate continuous compliance by meeting the requirements in paragraphs (c)(1) and (2) of this section.
 - (1) The flow-weighted mean concentration of particulate matter for all stacks from the ore dryer or indurating furnace must be maintained at or below the emission limits in Table 1 to this subpart.
 - (2) For ore dryers, you must conduct subsequent performance tests following the schedule in your title V permit. For indurating furnaces, you must conduct subsequent performance tests following the schedule in your title V permit, but no less frequent than twice per 5-year permit term. If a title V permit has not been issued, you must conduct subsequent performance tests according to a testing plan approved by the Administrator or delegated authority.

(d) On or before January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, for each baghouse applied to meet any particulate emission limit in Table 1 to this subpart, you must demonstrate continuous compliance by completing the requirements in paragraphs (d)(1) and (2) of this section. After January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, and after July 28, 2020, or upon start-up, whichever date is later, for affected sources that commenced construction or reconstruction after September 25, 2019, for each baghouse applied to meet any particulate emission limit in Table 1 to this subpart, you must demonstrate continuous compliance by completing the requirements in paragraphs (d)(1) through (3) of this section.

(1) Maintaining records of the time you initiated corrective action in the event of a bag leak detection system alarm, the corrective action(s) taken, and the date on which corrective action was completed.

(2) Inspecting and maintaining each baghouse according to the requirements in §63.9631(a) and recording all information needed to document conformance with the requirements in §63.9631(a). If you increase or decrease the sensitivity of the bag leak detection system beyond the limits specified in your site-specific monitoring plan, you must include a copy of the required written certification by a responsible official in the next semiannual compliance report.

(3) Each bag leak detection system must be operated and maintained such that the alarm does not sound more than 5 percent of the operating time during a 6-month period. Calculate the alarm time as specified in paragraphs (d)(3)(i) through (iii) of this section.

(i) If inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted.

(ii) If corrective action is required, each alarm time (*i.e.*, time that the alarm sounds) is counted as a minimum of 1 hour.

(iii) If it takes longer than 1 hour to initiate corrective action, each alarm time is counted as the actual amount of time taken to initiate corrective action.

(e) Except as provided in paragraph (f) of this section, for each wet scrubber subject to the operating limits for pressure drop and scrubber water flow rate in §63.9590(b)(1), you must demonstrate continuous compliance by completing the requirements of paragraphs (e)(1) through (4) of this section.

(1) Maintaining the daily average pressure drop and daily average scrubber water flow rate at or above the minimum levels established during the initial or subsequent performance test.

(2) Operating and maintaining each wet scrubber CPMS according to §63.9632(b) and recording all information needed to document conformance with these requirements.

(3) Collecting and reducing monitoring data for pressure drop and scrubber water flow rate according to §63.9632(c) and recording all information needed to document conformance with these requirements.

(4) If the daily average pressure drop or daily average scrubber water flow rate is below the operating limits established for a corresponding emission unit or group of similar emission units, you must then follow the corrective action procedures in paragraph (l) of this section.

(f) On or before January 28, 2022, for affected sources that commenced construction or reconstruction on or before September 25, 2019, for each dynamic wet scrubber subject to the operating limits for scrubber water flow rate and either the fan amperage or pressure drop in §63.9590(b)(2), you must demonstrate continuous compliance by completing the requirements of paragraphs (f)(1) through (4) of this section. After January 28, 2022, for affected sources that commenced construction or reconstruction on or before September 25, 2019, and after July 28, 2020, or upon start-up, whichever date is later, for affected sources that commenced construction or reconstruction after September 25, 2019, for each dynamic wet scrubber subject to the operating limits for scrubber water flow rate and the fan amperage in §63.9590(b)(2), you must demonstrate continuous compliance by completing the requirements of paragraphs (f)(1) through (4) of this section.

(1) On or before January 28, 2022, for affected sources that commenced construction or reconstruction on or before September 25, 2019, maintaining the daily average scrubber water flow rate and either the daily average fan amperage or the daily average pressure drop at or above the minimum levels established during the initial or subsequent performance test. After January 28, 2022, for affected sources that commenced construction or reconstruction on or before September 25, 2019, and after July 28, 2020, or upon start-up, whichever date is later, for affected sources that commenced construction or reconstruction after September 25, 2019, maintaining the daily average scrubber water flow rate and the daily average fan amperage at or above the minimum levels established during the initial or subsequent performance test.

(2) Operating and maintaining each dynamic wet scrubber CPMS according to §63.9632(b) and recording all information needed to document conformance with these requirements.

(3) On or before January 28, 2022, for affected sources that commenced construction or reconstruction on or before September 25, 2019, collecting and reducing monitoring data for scrubber water flow rate and either fan amperage or pressure drop according to §63.9632(c) and recording all information needed to document conformance with the requirements in §63.9632(c). After January 28, 2022, for affected sources that commenced construction or reconstruction on or before September 25, 2019, and after July 28, 2020, or upon start-up, whichever date is later, for affected sources that commenced construction or reconstruction after September 25, 2019, collecting and reducing monitoring data for scrubber water flow rate and fan amperage according to §63.9632(c) and recording all information needed to document conformance with the requirements in §63.9632(c).

(4) On or before January 28, 2022, for affected sources that commenced construction or reconstruction on or before September 25, 2019, if the daily average scrubber water flow rate, daily average fan amperage, or daily average pressure drop is below the operating limits established for a corresponding emission unit or group of similar emission units, you must then follow the corrective action procedures in paragraph (l) of this section. After January 28, 2022, for affected sources that commenced construction or reconstruction on or before September 25, 2019, and after July 28, 2020, or upon start-up, whichever date is later, for affected sources that commenced construction or reconstruction after September 25, 2019, if the daily average scrubber water flow rate or daily average fan amperage, is below the operating limits established for a corresponding emission unit or group of similar emission units, you must then follow the corrective action procedures in paragraph (l) of this section.

(g) For each dry ESP subject to operating limits in § 63.9590(b)(3), you must demonstrate continuous compliance by completing the requirements of paragraph (g)(1) or (2) of this section.

(1) If the operating limit for your dry ESP is a 6-minute average opacity of emissions value, then you must follow the requirements in paragraphs (g)(1)(i) through (iii) of this section.

(i) average opacity of emissions is above the operating limits established for a corresponding emission unit, you must then follow the corrective action procedures in paragraph (l) of this section.

(2) If the operating limit for your dry ESP is the daily average secondary voltage and daily average secondary current for each field, then you must follow the requirements in paragraphs (g)(2)(i) through (iv) of this section.

(i) Maintaining the daily average secondary voltage or daily average secondary current for each field at or above the minimum levels established during the initial or subsequent performance test.

(ii) Operating and maintaining each dry ESP CPMS according to § 63.9632(b) and recording all information needed to document conformance with these requirements.

(iii) Collecting and reducing monitoring data for secondary voltage or secondary current for each field according to § 63.9632(c) and recording all information needed to document conformance with these requirements.

(iv) If the daily average secondary voltage or daily average secondary current for each field is below the operating limits established for a corresponding emission unit, you must then follow the corrective action procedures in paragraph (l) of this section.

(h) For each wet ESP subject to the operating limits for secondary voltage, stack outlet temperature, and water flow rate in § 63.9590(b)(4), you must demonstrate continuous compliance by completing the requirements of paragraphs (h)(1) through (4) of this section.

(1) Maintaining the daily average secondary voltage and daily average scrubber water flow rate for each field at or above the minimum levels established during the initial or subsequent performance test. Maintaining the daily average stack outlet temperature at or below the maximum levels established during the initial or subsequent performance test.

(2) Operating and maintaining each wet ESP CPMS according to § 63.9632(b) and recording all information needed to document conformance with these requirements.

(3) Collecting and reducing monitoring data for secondary voltage, stack outlet temperature, and water flow rate according to § 63.9632(c) and recording all information needed to document conformance with these requirements.

(4) If the daily average secondary voltage, stack outlet temperature, or water flow rate does not meet the operating limits established for a corresponding emission unit, you must then follow the corrective action procedures in paragraph (l) of this section.

(i) For each affected indurating furnace subject to a hydrogen chloride and hydrogen fluoride emission limit in table 3 to this subpart, you must demonstrate continuous compliance by meeting the requirements in paragraphs (i)(1) and (2) of this section.

(1) For each wet scrubber and wet ESP subject to the operating limits for scrubber water flow rate and pH in § 63.9590(b)(5), you must demonstrate continuous compliance by completing the requirements of paragraphs (i)(1)(i) through (iv) of this section.

(i) Maintaining the daily average scrubber water flow rate and daily average pH of the scrubber water effluent at or above the minimum level established during the most recent performance test. If a higher average flow rate is measured during the last PM performance test, the operating limit for daily average scrubber water flow rate is the highest average scrubber water flow rate measured during the last PM performance test.

(ii) Operating and maintaining each of the CPMS used to measure scrubber water flow rate and pH according to § 63.9632(g) and recording all information needed to document conformance with these requirements.

(iii) Collecting and reducing monitoring data for scrubber water flow rate and pH according to § 63.9632(c) and recording all information needed to document conformance with these requirements.

(iv) If the daily average scrubber water flow rate or daily average pH is below the operating limits established for control device, you must follow the corrective action procedures in paragraph (l) of this section.

(2) For each DSI subject to the operating limits for sorbent injection rate and carrier gas flow rate in § 63.9590(b)(7), you must demonstrate continuous compliance by completing the requirements of paragraphs (i)(2)(i) through (iv) of this section.

(i) Maintain the daily average sorbent injection rate and carrier gas flow rate at or above the minimum level established during the most recent performance test.

(ii) Operate and maintain each CPMS used to measure the sorbent injection rate according to § 63.9632(h) and the carrier gas flow rate according to § 63.9632(i) and recording all information needed to document compliance with these requirements.

(iii) Collect and reduce monitoring data for the sorbent injection rate and carrier gas flow rate according to § 63.9632(c) and recording all information needed to document compliance with these requirements.

(iv) If the daily average the sorbent injection rate or carrier gas flow rate is below the operating limit established for the control device, you must follow the corrective action procedures in paragraph (l) of this section.

(j) For each affected indurating furnace using ACI to comply with the mercury emission limit in table 2 to this subpart, you must demonstrate continuous compliance by meeting the requirements of paragraphs (j)(1) or (2) of this section.

(1) If you use CEMS to demonstrate compliance, you must comply with the requirements in paragraphs (j)(1)(i) and (ii) of this section.

(i) You must operate a mercury CEMS in accordance with performance specification 12A at 40 CFR part 60, appendix B; these monitoring systems must be quality assured according to procedure 5 of 40 CFR 60, appendix F. You must demonstrate compliance with the mercury emissions limit using a 30-day rolling average of these 1-hour mercury concentrations or mass emissions rates, including CEMS data during startup and shutdown as defined in this subpart, calculated using equation 19–19 in section 12.4.1 of EPA Reference Method 19 at 40 CFR part 60, appendix A–7 of this part.

(ii) Owners or operators using a mercury CEMS to determine mass emission rate must install, operate, calibrate and maintain an instrument for continuously measuring and recording the mercury mass emissions rate to the atmosphere according to the requirements of performance specification 6 at 40 CFR part 60, appendix B and conducting an annual relative accuracy test of the continuous emission rate monitoring system according to section 8.2 of performance specification 6.

(2) If you do not use CEMS to demonstrate compliance, you must demonstrate continuous compliance by meeting the requirements of paragraphs (j)(2)(i) through (iv) of this section.

(i) Maintain the daily average activated carbon injection rate and carrier gas flow rate at or above the minimum level established during the most recent performance test.

(ii) Operate and maintain each CPMS used to measure the activated carbon injection rate according to § 63.9632(h) and the carrier gas flow rate according to § 63.9632(i), and record all information needed to document compliance with these requirements.

(iii) Collect and reduce monitoring data for the activated carbon injection rate and carrier gas flow rate according to § 63.9632(c) and record all information needed to document conformance with these requirements.

(iv) If the daily average of the activated carbon injection rate or carrier gas flow rate is below the operating limit established for the control device, you must follow the corrective action procedures in paragraph (l) of this section.

(k) If you use an air pollution control device other than a wet scrubber, dynamic wet scrubber, dry ESP, wet ESP, DSI, ACI, or baghouse, you must submit a site-specific monitoring plan in accordance with § 63.9631(f). The site-specific monitoring plan must include the site-specific procedures for demonstrating initial and continuous compliance with the corresponding operating limits.

(l) If the daily average operating parameter value for an emission unit or group of similar emission units does not meet the corresponding established operating limit, you must then follow the procedures in paragraphs (l)(1) through (4) of this section.

(1) You must initiate and complete initial corrective action within 10 calendar days and demonstrate that the initial corrective action was successful. During any period of corrective action, you must continue to monitor, and record all required operating parameters for equipment that remains in operation. After the initial corrective action, if the daily average operating parameter value for the emission unit or group of similar emission units meets the operating limit established for the corresponding unit or group, then the corrective action was successful and the emission unit or group of similar emission units is in compliance with the established operating limits.

(2) If the initial corrective action required in paragraph (l)(1) of this section was not successful, then you must complete additional corrective action within 10 calendar days and demonstrate that the subsequent corrective action was successful. During any period of corrective action, you must continue to monitor, and record all required operating parameters for equipment that remains in operation. If the daily average operating parameter value for the emission unit or group of similar emission units meets the operating limit established for the corresponding unit or group, then the corrective action was successful, and the emission unit or group of similar emission units is in compliance with the established operating limits.

(3) If the second attempt at corrective action required in paragraph (l)(2) of this section was not successful, then you must repeat the procedures of paragraph (l)(2) of this section until the corrective action is successful. If the third attempt at corrective action is unsuccessful, you must conduct another performance test in accordance with the procedures in § 63.9622(f) and report to the Administrator as a deviation the third unsuccessful attempt at corrective action.

(4) After the third unsuccessful attempt at corrective action, you must submit to the Administrator the written report required in paragraph (l)(3) of this section within 5 calendar days after the third unsuccessful attempt at corrective action. This report must notify the Administrator that a deviation has occurred and document the types of corrective measures taken to address the problem that resulted in the deviation of established operating parameters and the resulting operating limits.

(m) If you elect to comply with the mercury limit in table 2 to this subpart using emissions averaging in accordance with an implementation plan approved under the provisions in § 63.9623(d), you must comply with the requirements in paragraphs (m)(1) through (5) of this section.

(1) For furnaces included in the emissions averaging group that do not use mercury CEMS, you must comply with the requirements in paragraph (m)(1)(i) or (ii) as applicable.

(i) For furnaces equipped with ACI systems, you must comply with the requirements in paragraph (j) of this section.

(ii) For furnaces equipped with a mercury control device or method other than ACI, you must comply with your site-specific monitoring plan in accordance with the requirements in paragraph (k) of this section.

(2) For furnaces included in the emissions averaging group that use mercury CEMS, you must comply with the requirements in paragraph (i)(1) of this section.

(3) Calculate the monthly production-weighted average emission rate using either the mercury CEMS data or mercury emission rate determined during the last performance test and the actual taconite pellet production data for each furnace included in the emissions averaging option, as shown in Equation 6 of this section.

$$E_g = \frac{\sum_{f=1}^n (E_f \times P_f)}{\sum_{f=1}^n P_f} \quad (Eq. 6)$$

Where:

E_g = Monthly production-weighted average mercury emission rate for month “g” for the group of indurating furnaces, lb/LT of pellets produced,

E_f = Average mercury emission rate for furnace “f”, as determined using either mercury CEMS data or the emission rate determined during the last compliance stack test and calculated using Equation 5 of § 63.9621(d)(7)(i), lb/LT of pellets produced,

P_f = Total monthly production of finished taconite pellets for furnace “f”, in LT, and

n = Number of furnaces in the averaging group.

(4) Until 12 monthly weighted average emission rates have been accumulated, the monthly weighted average emissions rate, calculated as shown in paragraph (m)(3) of this section, must not exceed the mercury emission limit in table 3 of this subpart in any calendar month.

(5) After 12 monthly weighted average emission rates have been accumulated, for each subsequent calendar month, you must use Equation 7 of this section to calculate the 12-month rolling average of the monthly weighted average emission rates for the current month and the previous 11 months. The 12-month rolling weighted average emissions rate for the furnaces included in the group must not exceed the mercury emission limit in table 3 of this subpart.

$$E_{avg} = \frac{\sum_{i=1}^{12} E_i}{12} \quad Eq. 7$$

Where:

E_{avg} = 12-month rolling average emission rate, lb/LT.

E_i = Monthly weighted average for month “i” calculated as shown in Equation 6 of this section.

(n) You may elect to demonstrate continuous compliance with the mercury limit in table 2 to this subpart by adjusting the activated carbon injection rate based on the taconite pellet production rate. You must comply with the requirements in paragraphs (n)(1) through (7) of this section.

(1) Measure the activated carbon injection and mercury emissions rate at a minimum of three different production levels corresponding to the maximum, minimum and median finished taconite pellet production rates, using the methods specified in § 63.9620(k).

(2) Develop a correlation curve by plotting the production rate and corresponding carbon injection rate for the maximum, median and minimum production rates. Use only data where the mercury emission rate is below the applicable mercury emissions standard in table 2 to this subpart. Plot the production rates as the independent (or x) variable and the activated carbon injection rate as the dependent (or y) variable for each pellet production rate. Construct the graph by drawing straight line segments between each point plotted.

(3) You must develop and submit to the applicable regulatory authority for review and approval, an implementation plan no later than 180 days before the date you intend to demonstrate compliance by adjusting the activated carbon injection rate based on the taconite pellet production. You must include the information listed in paragraphs (n)(3)(i) through (iv) of this section in your implementation plan.

(i) Identification of the indurating furnace, including the typical maximum and minimum taconite pellet production rate, mercury control technology installed, and types of fuel(s) that will be burned.

- (ii) The mercury emissions and activated carbon injection rates at maximum, median and minimum taconite pellet production rates, and the methods used to measure the mercury emissions, activated carbon injection rate and taconite pellet production.
- (iii) The correlation curve developed in paragraph (n)(2) of this section.
- (iv) The date on which you are requesting to commence adjusting the activated carbon rate based on the taconite production rate.
- (4) Install, calibrate, maintain, and operate a CPMS to monitor and record the activated carbon injection rate and taconite pellet production rate.
- (5) Maintain the carbon injection rate at or above the rate established by the correlation curve corresponding to the taconite pellet production rate. If the taconite pellet production rate drops below the minimum rate established in paragraph (n)(3) of this section, you must maintain the activated carbon injection rate at or above the rate established for the minimum taconite pellet production rate.
- (6) Keep records of the activated carbon injection rate and taconite pellet production rate for each hour of operation in order to demonstrate that the activated carbon injection rate remains in compliance with paragraph (n)(5) of this section.
- (7) Establish a new correlation curve at least twice per 5-year permit term.

§63.9635 How do I demonstrate continuous compliance with the work practice standards that apply to me?

- (a) You must demonstrate continuous compliance with the work practice standard requirements in §63.9591 by operating in accordance with your fugitive dust emissions control plan at all times.
- (b) You must maintain a current copy of the fugitive dust emissions control plan required in §63.9591 onsite and it must be available for inspection upon request. You must keep the plan for the life of the affected source or until the affected source is no longer subject to the requirements of this subpart.

§63.9636 How do I demonstrate continuous compliance with the operation and maintenance requirements that apply to me?

- (a) For each control device used to comply with an emission standard in § 63.9590(a), you must demonstrate continuous compliance with the operation and maintenance requirements in § 63.9600(b) by completing the requirements of paragraphs (a)(1) through (4) of this section.
 - (1) Performing preventative maintenance for each control device in accordance with §63.9600(b)(1) and recording all information needed to document conformance with these requirements;
 - (2) Initiating and completing corrective action for a bag leak detection system alarm in accordance with §63.9600(b)(2) and recording all information needed to document conformance with these requirements;
 - (3) Initiating and completing corrective action for a CPMS when you exceed an established operating limit for an air pollution control device except for a baghouse in accordance with §63.9600(b)(3) and recording all information needed to document conformance with these requirements; and

(4) Implementing and maintaining site-specific good combustion practices for each indurating furnace in accordance with §63.9600(b)(4) and recording all information needed to document conformance with these requirements.

(b) You must maintain a current copy of the operation and maintenance plan required in §63.9600(b) onsite, and it must be available for inspection upon request. You must keep the plan for the life of the affected source or until the affected source is no longer subject to the requirements of this subpart.

§63.9637 What other requirements must I meet to demonstrate continuous compliance?

(a) *Deviations.* You must report each instance in which you did not meet each emission limitation in tables 1 through 3 to this subpart that applies to you. You also must report each instance in which you did not meet the work practice standards in § 63.9591 and each instance in which you did not meet each operation and maintenance requirement in § 63.9600 that applies to you. These instances are deviations from the emission limitations, work practice standards, and operation and maintenance requirements in this subpart. These deviations must be reported in accordance with the requirements in § 63.9641.

(b) *Startups, shutdowns, and malfunctions.* For existing sources and for new or reconstructed sources which commenced construction or reconstruction on or before September 25, 2019, on or before January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, consistent with §§63.6(e) and 63.7(e)(1), deviations that occur during a period of startup, shutdown, or malfunction are not violations if you demonstrate to the Administrator's satisfaction that you were operating in accordance with §63.6(e)(1). The Administrator will determine whether deviations that occur during a period of startup, shutdown, or malfunction are violations, according to the provisions in §63.6(e). After January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, and after July 28, 2020, or upon start-up, whichever date is later, for affected sources that commenced construction or reconstruction after September 25, 2019, the exemptions for periods of startup, shutdown, and malfunction in §63.6(e) no longer apply.

Notifications, Reports, and Records

§63.9640 What notifications must I submit and when?

(a) You must submit all of the notifications in §§63.7(b) and (c), 63.8(f)(4), and 63.9(b) through (h) that apply to you by the specified dates.

(b) As specified in §63.9(b)(2), if you start up your affected source before October 30, 2003, you must submit your initial notification no later than 120 calendar days after October 30, 2003, or no later than 120 days after the source becomes subject to this subpart, whichever is later.

(c) As specified in §63.9(b)(3), if you start up your new affected source on or after October 30, 2003, you must submit your initial notification no later than 120 calendar days after you become subject to this subpart.

(d) If you are required to conduct a performance test, you must submit a notification of intent to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin, as required in §63.7(b)(1).

(e) If you are required to conduct a performance test or other initial compliance demonstration, you must submit a notification of compliance status according to §63.9(h)(2)(ii). The initial notification of compliance status must be submitted by the dates specified in paragraphs (e)(1) and (2) of this section.

(1) For each initial compliance demonstration that does not include a performance test, you must submit the notification of compliance status before the close of business on the 30th calendar day following completion of the initial compliance demonstration.

(2) On or before January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, for each initial compliance demonstration that does include a performance test, you must submit the notification of compliance status, including the performance test results, before the close of business on the 60th calendar day following the completion of the performance test according to §63.10(d)(2). After January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, and after July 28, 2020, or upon start-up, whichever date is later, for affected sources that commenced construction or reconstruction after September 25, 2019, for each initial compliance demonstration that does include a performance test, you must submit the notification of compliance status, including the performance test results, before the close of business on the 60th calendar day following the completion of the performance test according to §63.10(d)(2). If the performance test results have been submitted electronically in accordance with §63.9641(f), the process unit(s) tested, the pollutant(s) tested, and the date that such performance test was conducted may be submitted in the notification of compliance status report in lieu of the performance test results. The performance test results must be submitted to the Compliance and Emissions Data Reporting Interface (CEDRI) by the date the notification of compliance status report is submitted.

(f) If you elect to use CEMS to demonstrate compliance with the mercury standards in table 2 to this subpart, you must submit a notification of intent to use CEMS at least one month prior to making the change. If you are currently using CEMS to demonstrate compliance with the mercury standards, you must submit a notification of intent to cease using CEMS to demonstrate compliance at least 180 days prior to making the change.

(g) If you elect to use the mercury emissions averaging compliance option, you must submit a notification of intent at least 180 days prior to making the change. If you are currently using the mercury emissions averaging compliance option, you must submit a notification of intent to cease using emissions averaging at least 30 days prior to making the change.

§63.9641 What reports must I submit and when?

(a) *Compliance report due dates.* Unless the Administrator has approved a different schedule, you must submit a semiannual compliance report to your permitting authority according to the requirements in paragraphs (a)(1) through (5) of this section.

(1) The first compliance report must cover the period beginning on the compliance date that is specified for your affected source in §63.9583 and ending on June 30 or December 31, whichever date comes first after the compliance date that is specified for your source in §63.9583.

(2) On or before January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, the first compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date comes first after your first compliance

report is due. After January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, and after July 28, 2020, or upon start-up, which ever date is later, for affected sources that commenced construction or reconstruction after September 25, 2019, the first compliance report must be electronically submitted, postmarked or delivered no later than July 31 or January 31, whichever date comes first after your first compliance report is due.

(3) Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(4) On or before January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, each subsequent compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date comes first after the end of the semiannual reporting period. After January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, and after July 28, 2020, or upon start-up, which ever date is later, for affected sources that commenced construction or reconstruction after September 25, 2019, each subsequent compliance report must be electronically submitted, postmarked or delivered no later than July 31 or January 31, whichever date comes first after the end of the semiannual reporting period.

(5) For each affected source that is subject to permitting regulations pursuant to 40 CFR part 70 or 40 CFR part 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), you may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (a)(1) through (4) of this section.

(b) *Compliance report contents.* Each compliance report must include the information in paragraphs (b)(1) through (8) of this section, as applicable.

(1) Company name and address.

(2) On or before January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, statement by a responsible official, with the official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report. After January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, and after July 28, 2020, or upon start-up, which ever date is later, for affected sources that commenced construction or reconstruction after September 25, 2019, statement by a responsible official, with the official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report. If your report is submitted via CEDRI, the certifier's electronic signature during the submission process replaces the requirement in this paragraph (b)(2).

(3) On or before January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, date of report and beginning and ending dates of the reporting period. After January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, and after July 28, 2020, or upon start-up, which ever date is later, for affected sources that commenced construction or reconstruction after September 25, 2019, date of report and beginning and ending dates of the reporting period. You are no longer required to provide the date of report when the report is submitted via CEDRI.

(4) On or before January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, if you had a startup, shutdown, or malfunction during the reporting period and you took actions consistent with your startup, shutdown, and malfunction plan, the compliance report must include the information in §63.10(d)(5)(i). A startup, shutdown, and malfunction plan and the information in §63.10(d)(5)(i) is not required after January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, and is not required after July 28, 2020, for affected sources that commenced construction or reconstruction after September 25, 2019.

(5) If there were no deviations from the continuous compliance requirements in §§63.9634 through 63.9636 that apply to you, then provide a statement that there were no deviations from the emission limitations, work practice standards, or operation and maintenance requirements during the reporting period.

(6) If there were no periods during which a continuous monitoring system (including a CPMS, COMS, or CEMS) was out-of-control as specified in § 63.8(c)(7), then provide a statement that there were no periods during which a continuous monitoring system was out-of-control during the reporting period.

(7) On or before January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, for each deviation from an emission limitation in Table 1 to this subpart that occurs at an affected source where you are not using a continuous monitoring system (including a CPMS or COMS) to comply with an emission limitation in this subpart, the compliance report must contain the information in paragraphs (b)(1) through (4) of this section and the information in paragraphs (b)(7)(i) and (ii) of this section. This includes periods of startup, shutdown, and malfunction. After January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, and after July 28, 2020, or upon start-up, whichever date is later, for affected sources that commenced construction or reconstruction after September 25, 2019, for each deviation from an emission limitation in Table 1 to this subpart that occurs at an affected source where you are not using a continuous monitoring system (including a CPMS or COMS) to comply with an emission limitation in this subpart, the compliance report must contain the information in paragraphs (b)(7)(i) and (ii) of this section.

(i) The total operating time in hours of each affected source during the reporting period.

(ii) On or before January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, information on the number, duration, and cause of deviation (including unknown cause) as applicable, and the corrective action taken. After January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, and after July 28, 2020, or upon start-up, whichever date is later, for affected sources that commenced construction or reconstruction after September 25, 2019, information on the affected sources or equipment, the emission limit deviated from, the start date, start time, duration in hours, and cause of each deviation (including unknown cause) as applicable, an estimate of the quantity in pounds of each regulated pollutant emitted over an emission limit and a description of the method used to estimate the emissions, and the corrective action taken.

(8) On or before January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, for each deviation from an emission limitation occurring at an affected source where you are using a continuous monitoring system (including a CPMS or COMS) to comply with the emission limitation in this subpart, you must include the information in paragraphs (b)(1) through (4) of this section and the information in paragraphs (b)(8)(i) through (xi) of this section. This includes periods of startup, shutdown, and malfunction. After January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, and after July 28, 2020, or upon start-up, whichever date is later, for affected sources that commenced construction or reconstruction after September 25, 2019, for each deviation from an emission limitation occurring at an affected source where you are using a continuous monitoring system (including a CPMS, COMS, or CEMS) to comply with the emission limitation in this subpart, you must include the information in paragraphs (b)(1) through (4) of this section and the information in paragraphs (b)(8)(i) through (xi) of this section.

(i) The date and time that each malfunction started and stopped.

(ii) The start date, start time, and duration in hours (or minutes for COMS) that each continuous monitoring system was inoperative, except for zero (low-level) and high-level checks.

(iii) The start date, start time, and duration that each continuous monitoring system was out-of-control, including the information in § 63.8(c)(8).

(iv) On or before January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, for each affected source or equipment, the date and time that each deviation started and stopped, the cause of the deviation, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period. After January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, and after July 28, 2020, or upon start-up, whichever date is later, for affected sources that commenced construction or reconstruction after September 25, 2019, for each affected source or equipment, the date and time that each deviation started and stopped, the cause of the deviation, and whether each deviation occurred during a period of malfunction or during another period

(v) The total duration of all deviations for each Continuous Monitoring System (CMS) during the reporting period, the total operating time in hours of the affected source during the reporting period, and the total duration as a percent of the total source operating time during that reporting period.

(vi) On or before January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, a breakdown of the total duration of the deviations during the reporting period including those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes. After January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, and after July 28, 2020, or upon start-up, whichever date is later, for affected sources that commenced construction or reconstruction after September 25, 2019, a breakdown of the total duration of the deviations during the

reporting period including those that are due to control equipment problems, process problems, other known causes, and other unknown causes.

(vii) The total duration of continuous monitoring system downtime for each continuous monitoring system during the reporting period, the total operating time in hours of the affected source during the reporting period, and the total duration of continuous monitoring system downtime as a percent of the total source operating time during the reporting period.

(viii) A brief description of the process units.

(ix) The monitoring equipment manufacturer and model number and the pollutant or parameter monitored.

(x) The date of the latest continuous monitoring system certification or audit.

(xi) A description of any changes in continuous monitoring systems, processes, or controls since the last reporting period.

(c) *Submitting compliance reports electronically.* Beginning on January 25, 2021, submit all subsequent compliance reports to the EPA via CEDRI, which can be accessed through the EPA's Central Data Exchange (CDX) (<https://cdx.epa.gov/>). The EPA will make all the information submitted through CEDRI available to the public without further notice to you. Do not use CEDRI to submit information you claim as confidential business information (CBI). Anything submitted using CEDRI cannot later be claimed to be CBI. You must use the appropriate electronic report template on the CEDRI website (<https://www.epa.gov/electronic-reporting-air-emissions/compliance-and-emissions-data-reporting-interface-cedri>) for this subpart. The report must be submitted by the deadline specified in this subpart, regardless of the method in which the report is submitted. Although we do not expect persons to assert a claim of CBI, if persons wish to assert a CBI claim, submit a complete report, including information claimed to be CBI, to the EPA. The report must be generated using the appropriate form on the CEDRI website. Clearly mark the part or all of the information that you claim to be CBI. Information not marked as CBI may be authorized for public release without prior notice. Information marked as CBI will not be disclosed except in accordance with procedures set forth in 40 CFR part 2. Submit the file following the procedures in paragraph (c)(1) or (2) of this section. The same file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described earlier in this paragraph (c). All CBI claims must be asserted at the time of submission. Furthermore, under CAA section 114(c) emissions data is not entitled to confidential treatment, and EPA is required to make emissions data available to the public. Thus, emissions data will not be protected as CBI and will be made publicly available. On or before January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, if you had a startup, shutdown, or malfunction during the reporting period that is not consistent with your startup, shutdown, and malfunction plan you must submit an immediate startup, shutdown and malfunction report according to the requirements in § 63.10(d)(5)(ii). After January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, and after July 28, 2020, or upon start-up, whichever date is later, for affected sources that commenced construction or reconstruction after September 25, 2019, an immediate startup, shutdown, and malfunction report is not required.

(1) The preferred method to receive CBI is for it to be transmitted electronically using email attachments, File Transfer Protocol, or other online file sharing services. Electronic submissions must

be transmitted directly to the OAQPS CBI Office at the email address oaqpscbi@epa.gov, and as described above, should include clear CBI markings and be flagged to the attention of the Taconite Iron Ore Processing Sector Lead. If assistance is needed with submitting large electronic files that exceed the file size limit for email attachments, and if you do not have your own file sharing service, please email oaqpscbi@epa.gov to request a file transfer link.

(2) If you cannot transmit the file electronically, you may send CBI information through the postal service to the following address: U.S. EPA, Attn: OAQPS Document Control Officer and Taconite Iron Ore Processing Sector Lead, Mail Drop: C404-02, 109 T.W. Alexander Drive, P.O. Box 12055, RTP, NC 27711. The mailed CBI material should be double wrapped and clearly marked. Any CBI markings should not show through the outer envelope.

(d) *Part 70 monitoring report.* If you have obtained a title V operating permit for an affected source pursuant to 40 CFR part 70 or 40 CFR part 71, you must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If you submit a compliance report for an affected source along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the compliance report includes all the required information concerning deviations from any emission limitation or operation and maintenance requirement in this subpart, submission of the compliance report satisfies any obligation to report the same deviations in the semiannual monitoring report. However, submission of a compliance report does not otherwise affect any obligation you may have to report deviations from permit requirements for an affected source to your permitting authority.

(e) *Immediate corrective action report.* If you had three unsuccessful attempts of applying corrective action as described in § 63.9634(l) on an emission unit or group of emission units, then you must submit an immediate corrective action report. Within 5 calendar days after the third unsuccessful attempt at corrective action, you must submit to the Administrator a written report in accordance with § 63.9634(l)(3) and (4). This report must notify the Administrator that a deviation has occurred and document the types of corrective measures taken to address the problem that resulted in the deviation of established operating parameters and the resulting operating limits.

(f) *Performance tests.* After January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, and after July 28, 2020, or upon start-up, which ever date is later, for affected sources that commenced construction or reconstruction after September 25, 2019, within 60 days after the date of completing each performance test required by this subpart, you must submit the results of the performance test following the procedures specified in paragraphs (f)(1) through (3) of this section.

(1) *Data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT website (<https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert>) at the time of the test.* Submit the results of the performance test to the EPA via CEDRI, which can be accessed through the EPA's CDX (<https://cdx.epa.gov/>). The data must be submitted in a file format generated through the use of the EPA's ERT. Alternatively, you may submit an electronic file consistent with the extensible markup language (XML) schema listed on the EPA's ERT website.

(2) *Data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT website at the time of the test.* The results of the performance test must be included as an attachment in the ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT website. Submit the ERT generated package or alternative file to the EPA via CEDRI.

(3) *Confidential business information (CBI).*

- (i) The EPA will make all the information submitted through CEDRI available to the public without further notice to you. Do not use CEDRI to submit information you claim as CBI. Although we do not expect persons to assert a claim of CBI, if you wish to assert a CBI claim for some of the information submitted under paragraph (f)(1) or (2) of this section, you must submit a complete file, including information claimed to be CBI, to the EPA.
- (ii) The file must be generated using the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT website.
- (iii) Clearly mark the part or all of the information that you claim to be CBI. Information not marked as CBI may be authorized for public release without prior notice. Information marked as CBI will not be disclosed except in accordance with procedures set forth in 40 CFR part 2.
- (iv) The preferred method to receive CBI is for it to be transmitted electronically using email attachments, File Transfer Protocol, or other online file sharing services. Electronic submissions must be transmitted directly to the OAQPS CBI Office at the email address oaqpscbi@epa.gov, and as described above, should include clear CBI markings and be flagged to the attention of the Group Leader, Measurement Policy Group. If assistance is needed with submitting large electronic files that exceed the file size limit for email attachments, and if you do not have your own file sharing service, please email oaqpscbi@epa.gov to request a file transfer link.
- (v) If you cannot transmit the file electronically, you may send CBI information through the postal service to the following address: U.S. EPA, Attn: OAQPS Document Control Officer and Measurement Policy Group Lead, Mail Drop: C404-02, 109 T.W. Alexander Drive, P.O. Box 12055, RTP, NC 27711. The mailed CBI material should be double wrapped and clearly marked. Any CBI markings should not show through the outer envelope.
- (vi) All CBI claims must be asserted at the time of submission. Anything submitted using CEDRI cannot later be claimed CBI. Furthermore, under CAA section 114(c), emissions data is not entitled to confidential treatment, and the EPA is required to make emissions data available to the public. Thus, emissions data will not be protected as CBI and will be made publicly available.
- (vii) You must submit the same file submitted to the CBI office with the CBI omitted to the EPA via the EPA's CDX as described in § 63.9(k).

(g) *Claims of EPA system outage.* After January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, and after July 28, 2020, or upon start-up, whichever date is later, for affected sources that commenced construction or reconstruction after September 25, 2019, if you are required to electronically submit a report through CEDRI in the EPA's CDX, you may assert a claim of EPA system outage for failure to timely comply with the reporting requirement. To assert a claim of EPA system outage, you must meet the requirements outlined in paragraphs (g)(1) through (7) of this section.

- (1) You must have been or will be precluded from accessing CEDRI and submitting a required report within the time prescribed due to an outage of either the EPA's CEDRI or CDX systems.
- (2) The outage must have occurred within the period of time beginning five business days prior to the date that the submission is due.
- (3) The outage may be planned or unplanned.
- (4) You must submit notification to the Administrator in writing as soon as possible following the date you first knew, or through due diligence should have known, that the event may cause or has caused a delay in reporting.
- (5) You must provide to the Administrator a written description identifying:
 - (i) The date(s) and time(s) when CDX or CEDRI was accessed and the system was unavailable;
 - (ii) A rationale for attributing the delay in reporting beyond the regulatory deadline to EPA system outage;
 - (iii) Measures taken or to be taken to minimize the delay in reporting; and
 - (iv) The date by which you propose to report, or if you have already met the reporting requirement at the time of the notification, the date you reported.
- (6) The decision to accept the claim of EPA system outage and allow an extension to the reporting deadline is solely within the discretion of the Administrator.
- (7) In any circumstance, the report must be submitted electronically as soon as possible after the outage is resolved.

(h) *Claims of force majeure*. After January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, and after July 28, 2020, or upon start-up, whichever date is later, for affected sources that commenced construction or reconstruction after September 25, 2019, if you are required to electronically submit a report through CEDRI in the EPA's CDX, you may assert a claim of *force majeure* for failure to timely comply with the reporting requirement. To assert a claim of *force majeure*, you must meet the requirements outlined in paragraphs (h)(1) through (5) of this section.

- (1) You may submit a claim if a *force majeure* event is about to occur, occurs, or has occurred or there are lingering effects from such an event within the period of time beginning five business days prior to the date the submission is due. For the purposes of this section, a *force majeure* event is defined as an event that will be or has been caused by circumstances beyond the control of the affected facility, its contractors, or any entity controlled by the affected facility that prevents you from complying with the requirement to submit a report electronically within the time period prescribed. Examples of such events are acts of nature (e.g., hurricanes, earthquakes, or floods), acts of war or terrorism, or equipment failure or safety hazard beyond the control of the affected facility (e.g., large scale power outage).
- (2) You must submit notification to the Administrator in writing as soon as possible following the date you first knew, or through due diligence should have known, that the event may cause or has caused a delay in reporting.
- (3) You must provide to the Administrator:

- (i) A written description of the *force majeure* event;
- (ii) A rationale for attributing the delay in reporting beyond the regulatory deadline to the *force majeure* event;
- (iii) Measures taken or to be taken to minimize the delay in reporting; and
- (iv) The date by which you propose to report, or if you have already met the reporting requirement at the time of the notification, the date you reported.

(4) The decision to accept the claim of *force majeure* and allow an extension to the reporting deadline is solely within the discretion of the Administrator.

(5) In any circumstance, the reporting must occur as soon as possible after the *force majeure* event occurs.

(i) *Use of CEMS for mercury.* If you use CEMS to demonstrate compliance with the mercury emissions limits in table 2 to this subpart, you must submit the results of the performance evaluation following the procedure specified in either paragraph (i)(1) or (2) of this section within 60 days after the date of completing each CEMS performance evaluation (as defined in § 63.2).

(1) For performance evaluations of continuous monitoring systems measuring relative accuracy test audit (RATA) pollutants that are supported by the EPA's ERT as listed on the EPA's ERT website at the time of the evaluation, you must submit the results of the performance evaluation to the EPA via the CEDRI. Performance evaluation data must be submitted in a file format generated through the use of the EPA's ERT or an alternate file format consistent with the XML schema listed on the EPA's ERT website. If you claim that some of the performance evaluation information being transmitted is CBI, you must submit a complete file generated through the use of the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT website, including information claimed to be CBI, on a compact disc, flash drive, or other commonly used electronic storage media to the EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAQPS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT or alternate file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described earlier in this section.

(2) For any performance evaluations of continuous monitoring systems measuring RATA pollutants that are not supported by the EPA's ERT as listed on the ERT website at the time of the evaluation, you must submit the results of the performance evaluation to the Administrator at the appropriate address listed in § 63.13.

§63.9642 What records must I keep?

(a) On or before January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, you must keep the records listed in paragraphs (a)(1) through (3) of this section. After January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, and after July 28, 2020, or upon start-up, whichever date is later, for affected sources that commenced construction or reconstruction after September 25, 2019, you must keep the records listed in paragraphs (a)(1) through (6) of this section.

- (1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any initial notification or notification of compliance status that you submitted, according to the requirements in §63.10(b)(2)(xiv).
 - (2) On or before January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, the records in §63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction. After January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, and after July 28, 2020, or upon start-up, whichever date is later, for affected sources that commenced construction or reconstruction after September 25, 2019, a startup, shutdown, and malfunction plan is not required.
 - (3) Records of performance tests and performance evaluations as required in §63.10(b)(2)(viii).
 - (4) In the event that an affected unit fails to meet an applicable standard, record the number of failures. For each failure record the date, time, the cause and duration of each failure.
 - (5) For each failure to meet an applicable standard, record and retain a list of the affected sources or equipment, an estimate of the quantity of each regulated pollutant emitted over any emission limit and a description of the method used to estimate the emissions.
 - (6) Record actions taken in accordance with the general duty requirements to minimize emissions in §63.9600(a) and any corrective actions taken to return the affected unit to its normal or usual manner of operation.
- (b) For each COMS and CEMS, you must keep the records specified in paragraphs (b)(1) through (5) of this section.
- (1) Records described in §63.10(b)(2)(vi) through (xi).
 - (2) Monitoring data for COMS during a performance evaluation as required in §63.6(h)(7)(i) and (ii).
 - (3) On or before January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, previous (that is, superseded) versions of the performance evaluation plan as required in §63.8(d)(3). After January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, and after July 28, 2020, or upon start-up, whichever date is later, for affected sources that commenced construction or reconstruction after September 25, 2019, previous (that is, superseded) versions of the performance evaluation plan as required in §63.9632(b)(5), with the program of corrective action included in the plan required under §63.8(d)(2).
 - (4) Records of the date and time that each deviation started and stopped, and whether the deviation occurred during a period of startup, shutdown, or malfunction or during another period.
 - (5) If you use mercury CEMS to demonstrate compliance with the mercury emission standard in table 2 of the subpart in accordance with § 63.9623(e), records of requests for alternatives to the relative accuracy test for CEMS as required in § 63.8(f)(6)(i).
- (c) You must keep the records required in §§63.9634 through 63.9636 to show continuous compliance with each emission limitation, work practice standard, and operation and maintenance requirement that applies to you.

(d) If you elect the mercury emissions averaging compliance alternative pursuant to § 63.9623(d), you must keep a copy of the emission averaging implementation plan required in § 63.9623(d)(2), records of the taconite pellet production rate for each furnace included in the averaging, and all calculations required under § 63.9634(m).

(e) If you elect to adjust the activated carbon injection rate based on the taconite pellet production rate in accordance with the provisions in § 63.9634(n), you must keep a copy of the activated carbon injection implementation plan and records of the taconite pellet production rate and activated carbon injection rate.

(f) If you use CEMS to demonstrate compliance with the mercury emissions limits in table 2 to this subpart, you must keep records of the notifications required in § 63.9642(f).

§63.9643 In what form and how long must I keep my records?

(a) Your records must be in a form suitable and readily available for expeditious review, according to §63.10(b)(1).

(b) As specified in §63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(c) You must keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record according to §63.10(b)(1). You can keep the records offsite for the remaining 3 years.

Other Requirements and Information

§63.9650 What parts of the General Provisions apply to me?

Table 4 to this subpart shows which parts of the General Provisions in §§ 63.1 through 63.16 apply to you.

§63.9651 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by us, the EPA, or a delegated authority such as your State, local, or tribal agency. If the EPA Administrator has delegated authority to your State, local, or tribal agency, then that agency has the authority to implement and enforce this subpart. You should contact your EPA Regional Office to find out if this subpart is delegated to your State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under subpart E of this part, the authorities contained in paragraph (c) of this section are retained by the Administrator of the EPA and are not transferred to the State, local, or tribal agency.

(c) The authorities that will not be delegated to state, local, or tribal agencies are specified in paragraphs (c)(1) through (5) of this section.

(1) Approval of non-opacity emission limitations and work practice standards under §63.6(h)(9) and as defined in §63.90.

(2) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f) and as defined in §63.90.

(3) Approval of major alternatives to monitoring under §63.8(f) and as defined in §63.90.

(4) Approval of major alternatives to recordkeeping and reporting under §63.10(f) and as defined in §63.90.

(5) Approval of an alternative to any electronic reporting to the EPA required by this subpart.

§63.9652 What definitions apply to this subpart?

Terms used in this subpart are defined in the Clean Air Act, in §63.2, and in this section as follows.

Activated carbon injection (ACI) system means an add-on air pollution control system in which activated carbon or brominated activated carbon is injected into the flue gas stream upstream of a particulate matter control device to absorb mercury in the exhaust stream. The absorbed mercury remains absorbed to the activated carbon and is collected in a primary or secondary particulate matter control device.

Affected source means each new or existing ore crushing and handling operation, ore dryer, indurating furnace, or finished pellet handling operation, at your taconite iron ore processing plant.

Bag leak detection system means a system that is capable of continuously monitoring relative particulate matter (dust) loadings in the exhaust of a baghouse to detect bag leaks and other upset conditions. A bag leak detection system includes, but is not limited to, an instrument that operates on triboelectric, light scattering, light transmittance, or other effect to continuously monitor relative particulate matter loadings.

Crusher means a machine used to crush taconite ore and includes feeders or conveyors located immediately below the crushing surfaces. Crushers include, but are not limited to, gyratory crushers and cone crushers.

Deviation means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

- (1) Fails to meet any requirement or obligation established by this subpart, including but not limited to any emission limitation (including operating limits) or operation and maintenance requirement; or
- (2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit.

Dry sorbent injection (DSI) system means an add-on air pollution control system that injects dry alkaline sorbent (dry injection) or sprays an alkaline sorbent (spray dryer) to react with and neutralize acid gas in the exhaust stream forming a dry powder material that is collected by a primary or secondary particulate matter control device.

Dynamic wet scrubber means an air emissions control device which utilizes a mechanically powered fan to cause contact between the process exhaust gas stream and the scrubbing liquid which are introduced concurrently into the fan inlet.

Electrostatic Precipitator (ESP) means a device that removes suspended particulate matter from flue exhaust by applying a high-voltage electrostatic charge to the particles, which are then attracted to and collected on a grounded plate. In a dry ESP, the particles are dislodged from the plate by rapping and are collected in a hopper positioned below the plate. In a wet ESP, particulates are removed from the plate by washing with water.

Emission limitation means any emission limit, opacity limit, or operating limit.

Finished pellet handling means the transfer of fired taconite pellets from the indurating furnace to the finished pellet stockpiles at the plant. Finished pellet handling includes, but is not limited to, furnace discharge or grate discharge, and finished pellet screening, transfer, and storage. The atmospheric pellet cooler vent stack and gravity conveyor gallery vents designed to remove heat and water vapor from the structure are not included as a part of the finished pellet handling affected source.

Fugitive dust emission source means a stationary source from which particles are discharged to the atmosphere due to wind or mechanical inducement such as vehicle traffic. Fugitive dust sources include, but are not limited to:

- (1) Stockpiles (includes, but is not limited to, stockpiles of uncrushed ore, crushed ore, or finished pellets);
- (2) Material transfer points;
- (3) Plant roadways;
- (4) Tailings basins;
- (5) Pellet loading areas; and
- (6) Yard areas.

Grate feed means the transfer of unfired taconite pellets from the pelletizer into the indurating furnace.

Grate kiln indurating furnace means a furnace system that consists of a traveling grate, a rotary kiln, and an annular cooler. The grate kiln indurating furnace begins at the point where the grate feed conveyor discharges the green balls onto the furnace traveling grate and ends where the hardened pellets exit the cooler. The atmospheric pellet cooler vent stack is not included as part of the grate kiln indurating furnace.

Indurating means the process whereby unfired taconite pellets, called green balls, are hardened at high temperature in an indurating furnace. Types of indurating furnaces include straight grate indurating furnaces and grate kiln indurating furnaces.

Ore crushing and handling means the process whereby dry taconite ore is crushed and screened. Ore crushing and handling includes, but is not limited to, all dry crushing operations (e.g., primary, secondary, and tertiary crushing), dry ore conveyance and transfer points, dry ore classification and screening, dry ore storage and stockpiling, dry milling, dry cobbing (i.e., dry magnetic separation), and the grate feed. Ore crushing and handling specifically excludes any operations where the dry crushed ore is saturated with water, such as wet milling and wet magnetic separation.

Ore dryer means a rotary dryer that repeatedly tumbles wet taconite ore concentrate through a heated air stream to reduce the amount of entrained moisture in the taconite ore concentrate.

Pellet cooler vent stacks means atmospheric vents in the cooler section of the grate kiln indurating furnace that exhaust cooling air that is not returned for recuperation. Pellet cooler vent stacks are not to be confused with the cooler discharge stack, which is in the pellet loadout or dumping area.

Pellet loading area means that portion of a taconite iron ore processing plant where taconite pellets are loaded into trucks or railcars.

Responsible official means responsible official as defined in §63.2.

Rod-deck venturi scrubber means a wet scrubber emission control device in which the inlet air flows through a bed of parallel metal pipes spaced apart to produce a series of parallel venturi throats.

Screen means a device for separating material according to size by passing undersize material through one or more mesh surfaces (screens) in series and retaining oversize material on the mesh surfaces (screens).

Storage bin means a facility for storage (including surge bins and hoppers) of taconite ore or taconite pellets prior to further processing or loading.

Straight grate indurating furnace means a furnace system that consists of a traveling grate that carries the taconite pellets through different furnace temperature zones. In the straight grate indurating furnace a layer of fired pellets, called the hearth layer, is placed on the traveling grate prior to the addition of unfired pellets. The straight grate indurating furnace begins at the point where the grate feed conveyor discharges the green balls onto the furnace traveling grate and ends where the hardened pellets drop off of the traveling grate.

Taconite iron ore processing means the separation and concentration of iron ore from taconite, a low-grade iron ore, to produce taconite pellets.

Taconite ore means a low-grade iron ore suitable for concentration of magnetite or hematite by fine grinding and magnetic or flotation treatment, from which pellets containing iron can be produced.

Tailings basin means a natural or artificial impoundment in which gangue or other refuse material resulting from the washing, concentration or treatment of ground taconite iron ore is confined.

Wet scrubber means an air pollution control device that removes particulate matter and acid gases from the waste gas stream of stationary sources. The pollutants are removed primarily through the impaction, diffusion, interception and/or absorption of the pollutant onto droplets of liquid. Wet scrubbers include venturi scrubbers, marble bed scrubbers, or impingement scrubbers. For purposes of this subpart, wet scrubbers do not include dynamic wet scrubbers.

Table 1 to Subpart RRRRR of Part 63—Emission Limits

As required in § 63.9590(a), you must comply with each applicable particulate matter emission limit in the following table:

If your affected source is . . .	and the affected source is categorized as . . .	then you must comply with the flow-weighted mean concentration of particulate matter discharged to the atmosphere from the affected source, as determined using the procedures in §63.9621(b), such that you must not exceed . . .
1. Ore crushing and handling emission units	Existing	0.008 grains per dry standard cubic foot (gr/dscf).
	New	0.005 gr/dscf.
2. Straight grate indurating furnace processing magnetite	Existing	0.01 gr/dscf.
	New	0.006 gr/dscf.
3. Grate kiln indurating furnace processing	Existing	0.01 gr/dscf.
	New	0.006 gr/dscf.

If your affected source is . . .	and the affected source is categorized as . . .	then you must comply with the flow-weighted mean concentration of particulate matter discharged to the atmosphere from the affected source, as determined using the procedures in §63.9621(b), such that you must not exceed . . .
magnetite		
4. Grate kiln indurating furnace processing hematite	Existing New	0.03 gr/dscf. 0.018 gr/dscf.
5. Finished pellet handling emission units	Existing New	0.008 gr/dscf. 0.005 gr/dscf.
6. Ore dryer	Existing New	0.052 gr/dscf. 0.025 gr/dscf.

Table 2 to Subpart RRRRR of Part 63 – Mercury Emission Limits for Indurating Furnaces

As required in § 63.9590(a), you must comply with each applicable mercury emission limit in the following table:

For...	You must meet the following emission limits...
1. Indurating furnaces constructed or reconstructed before May 15, 2023	Either: (1) Mercury emissions from each furnace must not exceed 1.4×10^{-5} lb/LT of taconite pellets produced, or (2) Production-weighted average mercury emissions for a group of indurating furnaces, calculated according to Equation 6 in § 63.9634(m)(3), must not exceed 1.3×10^{-5} lb/LT.
2. Indurating furnaces constructed or reconstructed on or after May 15, 2023	
	Mercury emissions from each furnace must not exceed 2.6×10^{-6} lb/LT.

Table 3 to Subpart RRRR of Part 63 – Hydrogen Chloride and Hydrogen Fluoride Emission Limits for indurating Furnaces

As required in § 63.9590(a), you must comply with each applicable hydrogen chloride and hydrogen fluoride emission limit in the following table:

For...	You must meet the following emission limits...
1. Indurating furnaces constructed or reconstructed before May 15, 2023	Hydrogen chloride emissions must not exceed 4.6×10^{-2} lb/Long Ton of taconite pellets produced. Hydrogen fluoride emissions must not exceed 1.2×10^{-2} lb/Long Ton of taconite pellets produced.
2. Indurating furnaces constructed or reconstructed on or after May 15, 2023	Hydrogen chloride emissions must not exceed 4.4×10^{-4} lb/Long Ton of taconite pellets produced. Hydrogen fluoride emissions must not exceed 3.3×10^{-4} lb/Long Ton of taconite pellets produced.

Table 4 to Subpart RRRRR of Part 63—Applicability of General Provisions to Subpart RRRRR of Part 63

As required in §63.9650, you must comply with the requirements of the NESHAP General Provisions (40 CFR part 63, subpart A) shown in the following table:

Citation	Subject	Applies to subpart RRRRR	Explanation
§63.1(a)(1)-(4)	Applicability	Yes	
§63.1(a)(5)	[Reserved]	No	
§63.1(a)(6)	Applicability	Yes	
§63.1(a)(7)-(9)	[Reserved]	No	
§63.1(a)(10)-(14)	Applicability	Yes	
§63.1(b)(1)	Initial Applicability Determination	Yes	
§63.1(b)(2)	[Reserved]	No	
§63.1(b)(3)	Initial Applicability Determination	Yes	
§63.1(c)(1)-(2)	Applicability After Standard Established, Permit Requirements	Yes	
§63.1(c)(3)-(4)	[Reserved]	No	
§63.1(c)(5)	Area Source Becomes Major	Yes	
§63.1(c)(6)	Reclassification	Yes	
§63.1(d)	[Reserved]	No	
§63.1(e)	Equivalency of Permit Limits	Yes	
§63.2	Definitions	Yes	
§63.3(a)-(c)	Units and Abbreviations	Yes	
§63.4(a)(1)-(2)	Prohibited Activities	Yes	
§63.4(a)(3)-(5)	[Reserved]	No	
§63.4(b)-(c)	Circumvention, Fragmentation	Yes	
§63.5(a)(1)-(2)	Construction/Reconstruction, Applicability	Yes	
§63.5(b)(1)	Construction/Reconstruction, Applicability	Yes	
§63.5(b)(2)	[Reserved]	No	

Citation	Subject	Applies to subpart RRRRR	Explanation
§63.5(b)(3)-(4)	Construction/Reconstruction, Applicability	Yes	
§63.5(b)(5)	[Reserved]	No	
§63.5(b)(6)	Applicability	Yes	
§63.5(c)	[Reserved]	No	
§63.5(d)(1)-(4)	Application for Approval of Construction or Reconstruction	Yes	
§63.5(e)	Approval of Construction or Reconstruction	Yes	
§63.5(f)	Approval Based on State Review	Yes	
§63.6(a)	Compliance with Standards and Maintenance Requirements	Yes	
§63.6(b)(1)-(5)	Compliance Dates for New/Reconstructed Sources	Yes	
§63.6(b)(6)	[Reserved]	No	
§63.6(b)(7)	Compliance Dates for New/Reconstructed Sources	Yes	
§63.6(c)(1)-(2)	Compliance Dates for Existing Sources	Yes	
§63.6(c)(3)-(4)	[Reserved]	No	
§63.6(c)(5)	Compliance Dates for Existing Sources	Yes	
§63.6(d)	[Reserved]	No	
§63.6(e)(1)(i)	Operation and Maintenance Requirements—General Duty to Minimize Emissions	Yes, on or before the compliance date specified in §63.9600(a). No, after the compliance date specified in §63.9600(a)	See §63.9600(a) for general duty requirement.
§63.6(e)(1)(ii)	Operation and Maintenance Requirements—Requirement to Correct Malfunction as Soon as Possible	No	
§63.6(e)(1)(iii)	Operation and Maintenance Requirements—Enforceability	Yes	
§63.6(e)(2)	[Reserved]	No	
§63.6(e)(3)	Startup, Shutdown, Malfunction (SSM) Plan	Yes, on or before the compliance date specified in §63.9610(c). No, after the	

Citation	Subject	Applies to subpart RRRRR	Explanation
		compliance date specified in §63.9610(c)	
§63.6(f)(1)	SSM Exemption	No	See §63.9600(a).
§63.6(f)(2)-(3)	Methods for Determining Compliance	Yes	
§63.6(g)(1)-(3)	Alternative Nonopacity Standard	Yes	
§63.6(h), except (h)(1)	Compliance with Opacity and Visible Emission (VE) Standards	No	Opacity limits in subpart RRRRR are established as part of performance testing in order to set operating limits for ESPs.
§63.6(h)(1)	Compliance except during SSM	No	See §63.9600(a).
§63.6(i)(1)-(14)	Extension of Compliance	Yes	
§63.6(i)(15)	[Reserved]	No	
§63.6(i)(16)	Extension of Compliance	Yes	
§63.6(j)	Presidential Compliance Exemption	Yes	
§63.7(a)(1)-(2)	Applicability and Performance Test Dates	No	Subpart RRRRR specifies performance test applicability and dates.
§63.7(a)(3)-(4)	Performance Testing Requirements	Yes	
§63.7(b)	Notification	Yes	
§63.7(c)	Quality Assurance/Test Plan	Yes	
§63.7(d)	Testing Facilities	Yes	
§63.7(e)(1)	Conduct of Performance Tests	No	See §63.9621.
§63.7(e)(2)-(4)	Conduct of Performance Tests	Yes	
§63.7(f)	Alternative Test Method	Yes	
§63.7(g)	Data Analysis	Yes	Except this subpart specifies how and when the performance test results are reported.
§63.7(h)	Waiver of Tests	Yes	
§63.8(a)(1)-(2)	Monitoring Requirements	Yes	
§63.8(a)(3)	[Reserved]	No	

Citation	Subject	Applies to subpart RRRRR	Explanation
§63.8(a)(4)	Additional Monitoring Requirements for Control Devices in §63.11	No	Subpart RRRRR does not require flares.
§63.8(b)(1)-(3)	Conduct of Monitoring	Yes	
§63.8(c)(1)(i)	Operation and Maintenance of CMS	Yes, on or before the compliance date specified in §63.9632(b)(4). No, after the compliance date specified in §63.9632(b)(4)	See §63.9632 for operation and maintenance requirements for monitoring. See §63.9600(a) for general duty requirement.
§63.8(c)(1)(ii)	Spare parts for CMS Equipment	Yes	
§63.8(c)(1)(iii)	SSM Plan for CMS	Yes, on or before the compliance date specified in §63.9632(b)(4). No, after the compliance date specified in §63.9632(b)(4)	
§63.8(c)(2)-(3)	CMS Operation/Maintenance	Yes	
§63.8(c)(4)	Frequency of Operation for CMS	No	Subpart RRRRR specifies requirements for operation of CMS.
§63.8(c)(5)-(8)	CMS Requirements	Yes	CMS requirements in §63.8(c)(5) and (6) apply only to COMS for dry electrostatic precipitators.
§63.8(d)(1)-(2)	Monitoring Quality Control	Yes	
§63.8(d)(3)	Monitoring Quality Control	No	See §63.9632(b)(5).
§63.8(e)	Performance Evaluation of CMS	Yes	
§63.8(f)(1)-(5)	Alternative Monitoring Method	Yes	
§63.8(f)(6)	Relative Accuracy Test Alternative (RATA)	No	Subpart RRRRR does not require continuous emission monitoring systems.
§63.8(g)(1)-(4)	Data Reduction	Yes	
§63.8(g)(5)	Data That Cannot Be Used	No	Subpart RRRRR specifies data reduction requirements.
§63.9	Notification Requirements	Yes	Additional notifications for CMS in §63.9(g) apply to COMS for dry electrostatic precipitators.
§63.9(k)	Electronic reporting procedures	Yes	Only as specified in §63.9(j).
§63.10(a)	Recordkeeping and Reporting, Applicability and General	Yes	

Citation	Subject	Applies to subpart RRRRR	Explanation
	Information		
§63.10(b)(1)	General Recordkeeping Requirements	Yes	
§63.10(b)(2)(i)	Records of SSM	No	See §63.9642 for recordkeeping when there is a deviation from a standard.
§63.10(b)(2)(ii)	Recordkeeping of Failures to Meet Standard	No	See §63.9642 for recordkeeping of (1) date, time and duration; (2) listing of affected source or equipment, and an estimate of the quantity of each regulated pollutant emitted over the standard; and (3) actions to minimize emissions and correct the failure.
§63.10(b)(2)(iii)	Maintenance Records	Yes	
§63.10(b)(2)(iv)	Actions Taken to Minimize Emissions During SSM	No	
§63.10(b)(2)(v)	Actions Taken to Minimize Emissions During SSM	No	
§63.10(b)(2)(vi)	Recordkeeping for CMS Malfunctions	Yes	
§63.10(b)(2)(vii)-(xii)	Recordkeeping for CMS	Yes	
§63.10(b)(2)(xiii)	Records for Relative Accuracy Test	No	Subpart RRRRR does not require continuous emission monitoring systems.
§63.10(b)(2)(xiv)	Records for Notification	Yes	
§63.10(b)(3)	Applicability Determinations	Yes	
§63.10(c)(1)-(6)	Additional Recordkeeping Requirements for Sources with CMS	Yes	
§63.10(c)(7)-(8)	Records of Excess Emissions and Parameter Monitoring Exceedances for CMS	No	Subpart RRRRR specifies recordkeeping requirements.
§63.10(c)(9)	[Reserved]	No	
§63.10(c)(10)-(14)	CMS Recordkeeping	Yes	

Permit Issued: [month day, year]

Permit Expires: [month day, year]

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Citation	Subject	Applies to subpart RRRRR	Explanation
§63.10(c)(15)	Use of SSM Plan	No	
§63.10(d)(1)-(2)	General Reporting Requirements	Yes	Except this subpart specifies how and when the performance test results are reported.
§63.10(d)(3)	Reporting opacity or VE observations	No	Subpart RRRRR does not have opacity and VE standards that require the use of EPA Method 9 of appendix A-4 to 40 CFR part 60 or EPA Method 22 of appendix A-7 to 40 CFR part 60.
§63.10(d)(5)	SSM Reports	Yes, on or before the compliance date specified in §63.9641(b)(4). No, after the compliance date specified in §63.9641(b)(4)	See §63.9641 for malfunction reporting requirements.
§63.10(e)	Additional Reporting Requirements	Yes, except a breakdown of the total duration of excess emissions due to startup/shutdown in 63.10(e)(3)(vi)(I) is not required and when the summary report is submitted through CEDRI, the report is not required to be titled "Summary Report-Gaseous and Opacity Excess Emission and Continuous Monitoring System Performance."	The electronic reporting template combines the information from the summary report and excess emission report with the Subpart RRRRR compliance report.
§63.10(f)	Waiver of Recordkeeping or Reporting Requirements	Yes	
§63.11	Control Device and Work Practice Requirements	No	Subpart RRRRR does not require flares.
§63.12(a)-(c)	State Authority and Delegations	Yes	
§63.13(a)-(c)	State/Regional Addresses	Yes	
§63.14(a)-(t)	Incorporations by Reference	Yes	
§63.15(a)-(b)	Availability of Information and Confidentiality	Yes	
§63.16	Performance Track Provisions	Yes	

Appendix K. 40 CFR Part 63, Subpart DDDDD—National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters

Source: 76 FR 15664, Mar. 21, 2011, unless otherwise noted.

§ 63.7480 What is the purpose of this subpart?

This subpart establishes national emission limitations and work practice standards for hazardous air pollutants (HAP) emitted from industrial, commercial, and institutional boilers and process heaters located at major sources of HAP. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations and work practice standards.

§ 63.7485 Am I subject to this subpart?

You are subject to this subpart if you own or operate an industrial, commercial, or institutional boiler or process heater as defined in § 63.7575 that is located at, or is part of, a major source of HAP, except as specified in § 63.7491. For purposes of this subpart, a major source of HAP is as defined in § 63.2, except that for oil and natural gas production facilities, a major source of HAP is as defined in § 63.7575.

§ 63.7490 What is the affected source of this subpart?

- (a) This subpart applies to new, reconstructed, and existing affected sources as described in paragraphs (a)(1) and (2) of this section.
 - (1) The affected source of this subpart is the collection at a major source of all existing industrial, commercial, and institutional boilers and process heaters within a subcategory as defined in § 63.7575.
 - (2) The affected source of this subpart is each new or reconstructed industrial, commercial, or institutional boiler or process heater, as defined in § 63.7575, located at a major source.
- (b) A boiler or process heater is new if you commence construction of the boiler or process heater after June 4, 2010, and you meet the applicability criteria at the time you commence construction.
- (c) A boiler or process heater is reconstructed if you meet the reconstruction criteria as defined in § 63.2, you commence reconstruction after June 4, 2010, and you meet the applicability criteria at the time you commence reconstruction.
- (d) A boiler or process heater is existing if it is not new or reconstructed.
- (e) An existing electric utility steam generating unit (EGU) that meets the applicability requirements of this subpart after the effective date of this final rule due to a change (e.g., fuel switch) is considered to be an existing source under this subpart.

§ 63.7491 Are any boilers or process heaters not subject to this subpart?

The types of boilers and process heaters listed in paragraphs (a) through (n) of this section are not subject to this subpart.

- (a) An electric utility steam generating unit (EGU) covered by subpart UUUUU of this part or a natural gas-fired EGU as defined in subpart UUUUU of this part firing at least 85 percent natural gas on an annual heat input basis.
- (b) A recovery boiler or furnace covered by subpart MM of this part.

- (c) A boiler or process heater that is used specifically for research and development, including test steam boilers used to provide steam for testing the propulsion systems on military vessels. This does not include units that provide heat or steam to a process at a research and development facility.
- (d) A hot water heater as defined in this subpart.
- (e) A refining kettle covered by subpart X of this part.
- (f) An ethylene cracking furnace covered by subpart YY of this part.
- (g) Blast furnace stoves as described in EPA-453/R-01-005 (incorporated by reference, see § 63.14).
- (h) Any boiler or process heater that is part of the affected source subject to another subpart of this part, such as boilers and process heaters used as control devices to comply with subparts JJJ, OOO, PPP, and U of this part.
- (i) Any boiler or process heater that is used as a control device to comply with another subpart of this part, or part 60, part 61, or part 65 of this chapter provided that at least 50 percent of the average annual heat input during any 3 consecutive calendar years to the boiler or process heater is provided by regulated gas streams that are subject to another standard.
- (j) Temporary boilers and process heaters as defined in this subpart.
- (k) Blast furnace gas fuel-fired boilers and process heaters as defined in this subpart.
- (l) Any boiler or process heater specifically listed as an affected source in any standard(s) established under section 129 of the Clean Air Act.
- (m) A unit that burns hazardous waste covered by Subpart EEE of this part. A unit that is exempt from Subpart EEE as specified in § 63.1200(b) is not covered by Subpart EEE.
- (n) Residential boilers as defined in this subpart.

§ 63.7495 When do I have to comply with this subpart?

- (a) If you have a new or reconstructed boiler or process heater, you must comply with this subpart by April 1, 2013, or upon startup of your boiler or process heater, whichever is later.
- (b) If you have an existing boiler or process heater, you must comply with this subpart no later than January 31, 2016, except as provided in § 63.6(i).
- (c) If you have an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP, paragraphs (c)(1) and (2) of this section apply to you.
 - (1) Any new or reconstructed boiler or process heater at the existing source must be in compliance with this subpart upon startup.
 - (2) Any existing boiler or process heater at the existing source must be in compliance with this subpart within 3 years after the source becomes a major source.
- (d) You must meet the notification requirements in § 63.7545 according to the schedule in § 63.7545 and in subpart A of this part. Some of the notifications must be submitted before you are required to comply with the emission limits and work practice standards in this subpart.

(e) If you own or operate an industrial, commercial, or institutional boiler or process heater and would be subject to this subpart except for the exemption in § 63.7491(l) for commercial and industrial solid waste incineration units covered by part 60, subpart CCCC or subpart DDDD, and you cease combusting solid waste, you must be in compliance with this subpart and are no longer subject to part 60, subparts CCCC or DDDD beginning on the effective date of the switch as identified under the provisions of § 60.2145(a)(2) and (3) or § 60.2710(a)(2) and (3).

(f) If you own or operate an existing EGU that becomes subject to this subpart after January 31, 2016, you must be in compliance with the applicable existing source provisions of this subpart on the effective date such unit becomes subject to this subpart.

(g) If you own or operate an existing industrial, commercial, or institutional boiler or process heater and would be subject to this subpart except for an exemption in § 63.7491(i) that becomes subject to this subpart after January 31, 2013, you must be in compliance with the applicable existing source provisions of this subpart within 3 years after such unit becomes subject to this subpart.

(h) If you own or operate an existing industrial, commercial, or institutional boiler or process heater and have switched fuels or made a physical change to the boiler or process heater that resulted in the applicability of a different subcategory after the compliance date of this subpart, you must be in compliance with the applicable existing source provisions of this subpart on the effective date of the fuel switch or physical change.

(i) If you own or operate a new industrial, commercial, or institutional boiler or process heater and have switched fuels or made a physical change to the boiler or process heater that resulted in the applicability of a different subcategory, you must be in compliance with the applicable new source provisions of this subpart on the effective date of the fuel switch or physical change.

Emission Limitations and Work Practice Standards

§ 63.7499 What are the subcategories of boilers and process heaters?

The subcategories of boilers and process heaters, as defined in § 63.7575 are:

- (a) Pulverized coal/solid fossil fuel units.
- (b) Stokers designed to burn coal/solid fossil fuel.
- (c) Fluidized bed units designed to burn coal/solid fossil fuel.
- (d) Stokers/sloped grate/other units designed to burn kiln dried biomass/bio-based solid.
- (e) Fluidized bed units designed to burn biomass/bio-based solid.
- (f) Suspension burners designed to burn biomass/bio-based solid.
- (g) Fuel cells designed to burn biomass/bio-based solid.
- (h) Hybrid suspension/grate burners designed to burn wet biomass/bio-based solid.
- (i) Stokers/sloped grate/other units designed to burn wet biomass/bio-based solid.
- (j) Dutch ovens/pile burners designed to burn biomass/bio-based solid.
- (k) Units designed to burn liquid fuel that are non-continental units.

- (l) Units designed to burn gas 1 fuels.
- (m) Units designed to burn gas 2 (other) gases.
- (n) Metal process furnaces.
- (o) Limited-use boilers and process heaters.
- (p) Units designed to burn solid fuel.
- (q) Units designed to burn liquid fuel.
- (r) Units designed to burn coal/solid fossil fuel.
- (s) Fluidized bed units with an integrated fluidized bed heat exchanger designed to burn coal/solid fossil fuel.
- (t) Units designed to burn heavy liquid fuel.
- (u) Units designed to burn light liquid fuel.

§ 63.7500 What emission limitations, work practice standards, and operating limits must I meet?

(a) You must meet the requirements in paragraphs (a)(1) through (3) of this section, except as provided in paragraphs (b) through (e) of this section. You must meet these requirements at all times the affected unit is operating, except as provided in paragraph (f) of this section.

(1) You must meet each emission limit and work practice standard in Tables 1 through 3 and 11 through 15 to this subpart that applies to your boiler or process heater, for each boiler or process heater at your source, except as provided under § 63.7522. The output-based emission limits, in units of pounds per million Btu of steam output, in Table 1 or 2 to this subpart are an alternative applicable only to boilers and process heaters that generate either steam, cogenerate steam with electricity, or both. The output-based emission limits, in units of pounds per megawatt-hour, in Table 1 or 2 to this subpart are an alternative applicable only to boilers that generate only electricity. Boilers that perform multiple functions (cogeneration and electricity generation) or supply steam to common headers would calculate a total steam energy output using Equation 1 of § 63.7575 to demonstrate compliance with the output-based emission limits, in units of pounds per million Btu of steam output, in Table 1 or 2 to this subpart. If you operate a new boiler or process heater, you can choose to comply with alternative limits as discussed in paragraphs (a)(1)(i) through (iv) of this section, but on or after October 6, 2025, you must comply with the emission limits in Table 1 to this subpart. If you operate an existing boiler or process heater, you can choose to comply with alternative limits as discussed in paragraph (a)(1)(v) of this section, but on or after October 6, 2025 you must comply with the emission limits in Table 2 to this subpart.

(i) If your boiler or process heater commenced construction or reconstruction after June 4, 2010, and before May 20, 2011, you may comply with the emission limits in Table 11 or 14 to this subpart until January 31, 2016.

(ii) If your boiler or process heater commenced construction or reconstruction on or after May 20, 2011, and before December 23, 2011, you may comply with the emission limits in Table 12 or 14 to this subpart until January 31, 2016.

(iii) If your boiler or process heater commenced construction or reconstruction on or after December 23, 2011, and before April 1, 2013, you may comply with the emission limits in Table 13 or 14 to this subpart until January 31, 2016.

(iv) If you operate a new boiler or process heater, you must comply with either the emission limits in Table 1 to this subpart or the emission limits in Table 14 to this subpart until you comply with the emission limits in Table 1.

(v) If you operate an existing boiler or process heater, you must comply with either the emission limits in Table 2 to this subpart or the emission limits in Table 15 to this subpart until you comply with the emission limits in Table 2.

(2) You must meet each operating limit in Table 4 to this subpart that applies to your boiler or process heater. If you use a control device or combination of control devices not covered in Table 4 to this subpart, or you wish to establish and monitor an alternative operating limit or an alternative monitoring parameter, you must apply to the EPA Administrator for approval of alternative monitoring under § 63.8(f).

(3) At all times, you must operate and maintain any affected source (as defined in § 63.7490), including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

(b) As provided in § 63.6(g), EPA may approve use of an alternative to the work practice standards in this section.

(c) Limited-use boilers and process heaters must complete a tune-up every 5 years as specified in § 63.7540. They are not subject to the emission limits in Tables 1 and 2 or Tables 11 through 15 to this subpart, the annual tune-up, or the energy assessment requirements in Table 3 to this subpart, or the operating limits in Table 4 to this subpart.

(d) Boilers and process heaters with a heat input capacity of less than or equal to 5 million Btu per hour in the units designed to burn gas 2 (other) fuels subcategory or units designed to burn light liquid fuels subcategory must complete a tune-up every 5 years as specified in § 63.7540.

(e) Boilers and process heaters in the units designed to burn gas 1 fuels subcategory with a heat input capacity of less than or equal to 5 million Btu per hour must complete a tune-up every 5 years as specified in § 63.7540. Boilers and process heaters in the units designed to burn gas 1 fuels subcategory with a heat input capacity greater than 5 million Btu per hour and less than 10 million Btu per hour must complete a tune-up every 2 years as specified in § 63.7540. Boilers and process heaters in the units designed to burn gas 1 fuels subcategory are not subject to the emission limits in Tables 1 and 2 or Tables 11 through 15 to this subpart, or the operating limits in Table 4 to this subpart.

(f) These standards apply at all times the affected unit is operating, except during periods of startup and shutdown during which time you must comply only with items 5 and 6 of Table 3 to this subpart.

§ 63.7501 [Reserved]

General Compliance Requirements

§ 63.7505 What are my general requirements for complying with this subpart?

(a) You must be in compliance with the emission limits, work practice standards, and operating limits in this subpart. These emission and operating limits apply to you at all times the affected unit is operating except for the periods noted in § 63.7500(f).

(b) [Reserved]

(c) You must demonstrate compliance with all applicable emission limits using performance stack testing, fuel analysis, or continuous monitoring systems (CMS), including a continuous emission monitoring system (CEMS), continuous opacity monitoring system (COMS), continuous parameter monitoring system (CPMS), or particulate matter continuous parameter monitoring system (PM CPMS), where applicable. You may demonstrate compliance with the applicable emission limit for hydrogen chloride (HCl), mercury, or total selected metals (TSM) using fuel analysis if the emission rate calculated according to § 63.7530(c) is less than the applicable emission limit. For gaseous fuels, you may not use fuel analyses to comply with the TSM alternative standard or the HCl standard. Otherwise, you must demonstrate compliance for HCl, mercury, or TSM using performance stack testing, if subject to an applicable emission limit listed in Table 1 or 2 or Tables 11 through 15 to this subpart.

(d) If you demonstrate compliance with any applicable emission limit through performance testing and subsequent compliance with operating limits through the use of CPMS, or with a CEMS or COMS, you must develop a site-specific monitoring plan according to the requirements in paragraphs (d)(1) through (4) of this section for the use of any CEMS, COMS, or CPMS. This requirement also applies to you if you petition the EPA Administrator for alternative monitoring parameters under § 63.8(f).

(1) For each CMS required in this section (including CEMS, COMS, or CPMS), you must develop, and submit to the Administrator for approval upon request, a site-specific monitoring plan that addresses design, data collection, and the quality assurance and quality control elements outlined in § 63.8(d) and the elements described in paragraphs (d)(1)(i) through (iii) of this section. You must submit this site-specific monitoring plan, if requested, at least 60 days before your initial performance evaluation of your CMS. This requirement to develop and submit a site specific monitoring plan does not apply to affected sources with existing CEMS or COMS operated according to the performance specifications under appendix B to part 60 of this chapter and that meet the requirements of § 63.7525. Using the process described in § 63.8(f)(4), you may request approval of alternative monitoring system quality assurance and quality control procedures in place of those specified in this paragraph and, if approved, include the alternatives in your site-specific monitoring plan.

- (i) Installation of the CMS sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (e.g., on or downstream of the last control device);
- (ii) Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction systems; and
- (iii) Performance evaluation procedures and acceptance criteria (e.g., calibrations, accuracy audits, analytical drift).

(2) In your site-specific monitoring plan, you must also address paragraphs (d)(2)(i) through (iii) of this section.

(i) Ongoing operation and maintenance procedures in accordance with the general requirements of § 63.8(c)(1)(ii), (c)(3), and (c)(4)(ii);

(ii) Ongoing data quality assurance procedures in accordance with the general requirements of § 63.8(d); and

(iii) Ongoing recordkeeping and reporting procedures in accordance with the general requirements of § 63.10(c) (as applicable in Table 10 to this subpart), (e)(1), and (e)(2)(i).

(3) You must conduct a performance evaluation of each CMS in accordance with your site-specific monitoring plan.

(4) You must operate and maintain the CMS in continuous operation according to the site-specific monitoring plan.

(e) If you have an applicable emission limit, and you choose to comply using definition (2) of “startup” in § 63.7575, you must develop and implement a written startup and shutdown plan (SSP) according to the requirements in Table 3 to this subpart. The SSP must be maintained onsite and available upon request for public inspection.

Testing, Fuel Analyses, and Initial Compliance Requirements

§ 63.7510 What are my initial compliance requirements and by what date must I conduct them?

(a) For each boiler or process heater that is required or that you elect to demonstrate compliance with any of the applicable emission limits in Table 1 or 2 or Tables 11 through 15 to this subpart through performance (stack) testing, your initial compliance requirements include all the following:

(1) Conduct performance tests according to § 63.7520 and Table 5 to this subpart.

(2) Conduct a fuel analysis for each type of fuel burned in your boiler or process heater according to § 63.7521 and Table 6 to this subpart, except as specified in paragraphs (a)(2)(i) through (iii) of this section.

(i) For each boiler or process heater that burns a single type of fuel, you are not required to conduct a fuel analysis for each type of fuel burned in your boiler or process heater according to § 63.7521 and Table 6 to this subpart. For purposes of this subpart, units that use a supplemental fuel only for startup, unit shutdown, and transient flame stability purposes still qualify as units that burn a single type of fuel, and the supplemental fuel is not subject to the fuel analysis requirements under § 63.7521 and Table 6 to this subpart.

(ii) When natural gas, refinery gas, or other gas 1 fuels are co-fired with other fuels, you are not required to conduct a fuel analysis of those Gas 1 fuels according to § 63.7521 and Table 6 to this subpart. If gaseous fuels other than natural gas, refinery gas, or other gas 1 fuels are co-fired with other fuels and those non-Gas 1 gaseous fuels are subject to another subpart of this part, part 60, part 61, or part 65, you are not required to conduct a fuel analysis of those non-Gas 1 fuels according to § 63.7521 and Table 6 to this subpart.

(iii) You are not required to conduct a chlorine fuel analysis for any gaseous fuels. You must conduct a fuel analysis for mercury on gaseous fuels unless the fuel is exempted in paragraphs (a)(2)(i) and (ii) of this section.

(3) Establish operating limits according to § 63.7530 and Table 7 to this subpart.

(4) Conduct CMS performance evaluations according to § 63.7525.

(b) For each boiler or process heater that you elect to demonstrate compliance with the applicable emission limits in Table 1 or 2 or Tables 11 through 15 to this subpart for HCl, mercury, or TSM through fuel analysis, your initial compliance requirement is to conduct a fuel analysis for each type of fuel burned in your boiler or process heater according to § 63.7521 and Table 6 to this subpart and establish operating limits according to § 63.7530 and Table 8 to this subpart. The fuels described in paragraphs (a)(2)(i) and (ii) of this section are exempt from these fuel analysis and operating limit requirements. The fuels described in paragraph (a)(2)(ii) of this section are exempt from the chloride fuel analysis and operating limit requirements. Boilers and process heaters that use a CEMS for mercury or HCl are exempt from the performance testing and operating limit requirements specified in paragraph (a) of this section for the HAP for which CEMS are used.

(c) If your boiler or process heater is subject to a carbon monoxide (CO) limit, your initial compliance demonstration for CO is to conduct a performance test for CO according to Table 5 to this subpart or conduct a performance evaluation of your continuous CO monitor, if applicable, according to § 63.7525(a). Boilers and process heaters that use a CO CEMS to comply with the applicable alternative CO CEMS emission standard listed in Table 1 or 2 or Tables 11 through 15 to this subpart, as specified in § 63.7525(a), are exempt from the initial CO performance testing and oxygen concentration operating limit requirements specified in paragraph (a) of this section.

(d) If your boiler or process heater is subject to a PM limit, your initial compliance demonstration for PM is to conduct a performance test in accordance with § 63.7520 and Table 5 to this subpart.

(e) For existing affected sources (as defined in § 63.7490), you must complete the initial compliance demonstrations, as specified in paragraphs (a) through (d) of this section, no later than 180 days after the compliance date that is specified for your source in § 63.7495 and according to the applicable provisions in § 63.7(a)(2) as cited in Table 10 to this subpart, except as specified in paragraph (j) of this section. You must complete an initial tune-up by following the procedures described in § 63.7540(a)(10)(i) through (vi) no later than the compliance date specified in § 63.7495, except as specified in paragraph (j) of this section. You must complete the one-time energy assessment specified in Table 3 to this subpart no later than the compliance date specified in § 63.7495.

(f) For new or reconstructed affected sources (as defined in § 63.7490), you must complete the initial compliance demonstration with the emission limits no later than July 30, 2013, or within 180 days after startup of the source, whichever is later.

(1) If you are demonstrating compliance with an emission limit in Tables 11 through 13 to this subpart that is less stringent than the applicable emission limit in Table 14 to this subpart, you must demonstrate compliance with the applicable emission limit in Table 14 no later than July 29, 2016.

(2) If you are demonstrating compliance with an emission limit in Table 14 to this subpart that is less stringent than the applicable emission limit in Table 1 to this subpart, you must demonstrate compliance with the applicable emission limit in Table 1 no later than October 6, 2025.

(g) For new or reconstructed affected sources (as defined in § 63.7490), you must demonstrate initial compliance with the applicable work practice standards in Table 3 to this subpart within the applicable annual, biennial, or 5-year schedule as specified in § 63.7515(d) following the initial compliance date specified in § 63.7495(a). Thereafter, you are required to complete the applicable annual, biennial, or 5-year tune-up as specified in § 63.7515(d).

(h) For affected sources (as defined in § 63.7490) that ceased burning solid waste consistent with § 63.7495(e) and for which the initial compliance date has passed, you must demonstrate compliance within 60 days of the effective date of the waste-to-fuel switch. If you have not conducted your compliance demonstration for this subpart within the previous 12 months, you must complete all compliance demonstrations for this subpart before you commence or recommence combustion of solid waste.

(i) For an existing EGU that becomes subject after January 31, 2016, you must demonstrate compliance within 180 days after becoming an affected source.

(j) For existing affected sources (as defined in § 63.7490) that have not operated between the effective date of the rule and the compliance date that is specified for your source in § 63.7495, you must complete the initial compliance demonstration, if subject to the emission limits in Table 2 or 14 to this subpart, as applicable, as specified in paragraphs (a) through (d) of this section, no later than 180 days after the re-start of the affected source and according to the applicable provisions in § 63.7(a)(2) as cited in Table 10 to this subpart. You must complete an initial tune-up by following the procedures described in § 63.7540(a)(10)(i) through (vi) no later than 30 days after the re-start of the affected source and, if applicable, complete the one-time energy assessment specified in Table 3 to this subpart, no later than the compliance date specified in § 63.7495.

(k) For affected sources, as defined in § 63.7490, that switch subcategories consistent with § 63.7545(h) after the initial compliance date, you must demonstrate compliance within 60 days of the effective date of the switch, unless you had previously conducted your compliance demonstration for this subcategory within the previous 12 months.

§ 63.7515 When must I conduct subsequent performance tests, fuel analyses, or tune-ups?

(a) You must conduct all applicable performance tests according to § 63.7520 on an annual basis, except as specified in paragraphs (b) through (e), (g), and (h) of this section. Annual performance tests must be completed no more than 13 months after the previous performance test, except as specified in paragraphs (b) through (e), (g), and (h) of this section.

(b) If your performance tests for a given pollutant for at least 2 consecutive years show that your emissions are at or below 75 percent of the emission limit (or, in limited instances as specified in Tables 1 and 2 or 11 through 15 to this subpart, at or below the emission limit) for the pollutant, and if there are no changes in the operation of the individual boiler or process heater or air pollution control equipment that could increase emissions, you may choose to conduct performance tests for the pollutant every third year. Each such performance test must be conducted no more than 37 months after the previous performance test. If you elect to demonstrate compliance using emission averaging under § 63.7522, you

must continue to conduct performance tests annually. The requirement to test at maximum chloride input level is waived unless the stack test is conducted for HCl. The requirement to test at maximum mercury input level is waived unless the stack test is conducted for mercury. The requirement to test at maximum TSM input level is waived unless the stack test is conducted for TSM.

(c) If a performance test shows emissions exceeded the emission limit or 75 percent of the emission limit (as specified in Tables 1 and 2 or 11 through 15 to this subpart) for a pollutant, you must conduct annual performance tests for that pollutant until all performance tests over a consecutive 2-year period meet the required level (at or below 75 percent of the emission limit, as specified in Tables 1 and 2 or 11 through 15).

(d) If you are required to meet an applicable tune-up work practice standard, you must conduct an annual, biennial, or 5-year performance tune-up according to § 63.7540(a)(10), (11), or (12), respectively. Each annual tune-up specified in § 63.7540(a)(10) must be no more than 13 months after the previous tune-up. Each biennial tune-up specified in § 63.7540(a)(11) must be conducted no more than 25 months after the previous tune-up. Each 5-year tune-up specified in § 63.7540(a)(12) must be conducted no more than 61 months after the previous tune-up. For a new or reconstructed affected source (as defined in § 63.7490), the first annual, biennial, or 5-year tune-up must be no later than 13 months, 25 months, or 61 months, respectively, after April 1, 2013 or the initial startup of the new or reconstructed affected source, whichever is later.

(e) If you demonstrate compliance with the mercury, HCl, or TSM based on fuel analysis, you must conduct a monthly fuel analysis according to § 63.7521 for each type of fuel burned that is subject to an emission limit in Table 1 or 2 or Tables 11 through 15 to this subpart. You may comply with this monthly requirement by completing the fuel analysis any time within the calendar month as long as the analysis is separated from the previous analysis by at least 14 calendar days. If you burn a new type of fuel, you must conduct a fuel analysis before burning the new type of fuel in your boiler or process heater. You must still meet all applicable continuous compliance requirements in § 63.7540. If each of 12 consecutive monthly fuel analyses demonstrates 75 percent or less of the compliance level, you may decrease the fuel analysis frequency to quarterly for that fuel. If any quarterly sample exceeds 75 percent of the compliance level or you begin burning a new type of fuel, you must return to monthly monitoring for that fuel, until 12 months of fuel analyses are again less than 75 percent of the compliance level. If sampling is conducted on 1 day per month, samples should be no less than 14 days apart, but if multiple samples are taken per month, the 14-day restriction does not apply.

(f) You must report the results of performance tests and the associated fuel analyses within 60 days after the completion of the performance tests. This report must also verify that the operating limits for each boiler or process heater have not changed or provide documentation of revised operating limits established according to § 63.7530 and Table 7 to this subpart, as applicable. The reports for all subsequent performance tests must include all applicable information required in § 63.7550.

(g) For affected sources (as defined in § 63.7490) that have not operated since the previous compliance demonstration and more than 1 year has passed since the previous compliance demonstration, you must complete the subsequent compliance demonstration, if subject to the emission limits in Table 1 or 2 or Tables 11 through 15 to this subpart, no later than 180 days after the re-start of the affected source and according to the applicable provisions in § 63.7(a)(2) as cited in Table 10 to this subpart. You must complete a subsequent tune-up by following the procedures described in § 63.7540(a)(10)(i) through (vi)

and the schedule described in § 63.7540(a)(13) for units that are not operating at the time of their scheduled tune-up.

(h) If your affected boiler or process heater is in the unit designed to burn light liquid subcategory and you combust ultra-low sulfur liquid fuel, you do not need to conduct further performance tests (stack tests or fuel analyses) if the pollutants measured during the initial compliance performance tests meet the emission limits in Tables 1 or 2 of this subpart providing you demonstrate ongoing compliance with the emissions limits by monitoring and recording the type of fuel combusted on a monthly basis. If you intend to use a fuel other than ultra-low sulfur liquid fuel, natural gas, refinery gas, or other gas 1 fuel, you must conduct new performance tests within 60 days of burning the new fuel type.

(i) If you operate a CO CEMS that meets the Performance Specifications outlined in § 63.7525(a)(3) to demonstrate compliance with the applicable alternative CO CEMS emission standard listed in Table 1 or 2 or Tables 11 through 15 to this subpart, you are not required to conduct CO performance tests and are not subject to the oxygen concentration operating limit requirement specified in § 63.7510(a).

§ 63.7520 What stack tests and procedures must I use?

(a) You must conduct all performance tests according to § 63.7(c), (d), (f), and (h). You must also develop a site-specific stack test plan according to the requirements in § 63.7(c). You shall conduct all performance tests under such conditions as the Administrator specifies to you based on the representative performance of each boiler or process heater for the period being tested. Upon request, you shall make available to the Administrator such records as may be necessary to determine the conditions of the performance tests.

(b) You must conduct each performance test according to the requirements in Table 5 to this subpart.

(c) You must conduct each performance test under the specific conditions listed in Tables 5 and 7 to this subpart. You must conduct performance tests at representative operating load conditions while burning the type of fuel or mixture of fuels that has the highest content of chlorine and mercury, and TSM if you are opting to comply with the TSM alternative standard and you must demonstrate initial compliance and establish your operating limits based on these performance tests. These requirements could result in the need to conduct more than one performance test. Following each performance test and until the next performance test, you must comply with the operating limit for operating load conditions specified in Table 4 to this subpart.

(d) You must conduct a minimum of three separate test runs for each performance test required in this section, as specified in § 63.7(e)(3). Each test run must comply with the minimum applicable sampling times or volumes specified in Tables 1 and 2 or 11 through 15 to this subpart.

(e) To determine compliance with the emission limits, you must use the F-Factor methodology and equations in sections 12.2 and 12.3 of EPA Method 19 at 40 CFR part 60, appendix A-7 of this chapter to convert the measured particulate matter (PM) concentrations, the measured HCl concentrations, the measured mercury concentrations, and the measured TSM concentrations that result from the performance test to pounds per million Btu heat input emission rates.

(f) Except for a 30-day rolling average based on CEMS (or sorbent trap monitoring system) data, if measurement results for any pollutant are reported as below the method detection level (e.g., laboratory analytical results for one or more sample components are below the method defined analytical detection

level), you must use the method detection level as the measured emissions level for that pollutant in calculating compliance. The measured result for a multiple component analysis (e.g., analytical values for multiple Method 29 fractions both for individual HAP metals and for total HAP metals) may include a combination of method detection level data and analytical data reported above the method detection level.

§ 63.7521 What fuel analyses, fuel specification, and procedures must I use?

(a) For solid and liquid fuels, you must conduct fuel analyses for chloride and mercury according to the procedures in paragraphs (b) through (e) of this section and Table 6 to this subpart, as applicable. For solid fuels and liquid fuels, you must also conduct fuel analyses for TSM if you are opting to comply with the TSM alternative standard. For gas 2 (other) fuels, you must conduct fuel analyses for mercury according to the procedures in paragraphs (b) through (e) of this section and Table 6 to this subpart, as applicable. For gaseous fuels, you may not use fuel analyses to comply with the TSM alternative standard or the HCl standard. For purposes of complying with this section, a fuel gas system that consists of multiple gaseous fuels collected and mixed with each other is considered a single fuel type and sampling and analysis is only required on the combined fuel gas system that will feed the boiler or process heater. Sampling and analysis of the individual gaseous streams prior to combining is not required. You are not required to conduct fuel analyses for fuels used for only startup, unit shutdown, and transient flame stability purposes. You are required to conduct fuel analyses only for fuels and units that are subject to emission limits for mercury, HCl, or TSM in Tables 1 and 2 or 11 through 15 to this subpart. Gaseous and liquid fuels are exempt from the sampling requirements in paragraphs (c) and (d) of this section.

(b) You must develop a site-specific fuel monitoring plan according to the following procedures and requirements in paragraphs (b)(1) and (2) of this section, if you are required to conduct fuel analyses as specified in § 63.7510.

(1) If you intend to use an alternative analytical method other than those required by Table 6 to this subpart, you must submit the fuel analysis plan to the Administrator for review and approval no later than 60 days before the date that you intend to conduct the initial compliance demonstration described in § 63.7510.

(2) You must include the information contained in paragraphs (b)(2)(i) through (vi) of this section in your fuel analysis plan.

(i) The identification of all fuel types anticipated to be burned in each boiler or process heater.

(ii) For each anticipated fuel type, the notification of whether you or a fuel supplier will be conducting the fuel analysis.

(iii) For each anticipated fuel type, a detailed description of the sample location and specific procedures to be used for collecting and preparing the composite samples if your procedures are different from paragraph (c) or (d) of this section. Samples should be collected at a location that most accurately represents the fuel type, where possible, at a point prior to mixing with other dissimilar fuel types.

(iv) For each anticipated fuel type, the analytical methods from Table 6, with the expected minimum detection levels, to be used for the measurement of chlorine or mercury.

(v) If you request to use an alternative analytical method other than those required by Table 6 to this subpart, you must also include a detailed description of the methods and procedures that you are proposing to use. Methods in Table 6 shall be used until the requested alternative is approved.

(vi) If you will be using fuel analysis from a fuel supplier in lieu of site-specific sampling and analysis, the fuel supplier must use the analytical methods required by Table 6 to this subpart.

(c) You must obtain composite fuel samples for each fuel type according to the procedures in paragraph (c)(1) or (2) of this section, or the methods listed in Table 6 to this subpart, or use an automated sampling mechanism that provides representative composite fuel samples for each fuel type that includes both coarse and fine material. At a minimum, for demonstrating initial compliance by fuel analysis, you must obtain three composite samples. For monthly fuel analyses, at a minimum, you must obtain a single composite sample. For fuel analyses as part of a performance stack test, as specified in § 63.7510(a), you must obtain a composite fuel sample during each performance test run.

(1) If sampling from a belt (or screw) feeder, collect fuel samples according to paragraphs (c)(1)(i) and (ii) of this section.

(i) Stop the belt and withdraw a 6-inch wide sample from the full cross-section of the stopped belt to obtain a minimum two pounds of sample. You must collect all the material (fines and coarse) in the full cross-section. You must transfer the sample to a clean plastic bag.

(ii) Each composite sample will consist of a minimum of three samples collected at approximately equal intervals during the testing period for sampling during performance stack testing.

(2) If sampling from a fuel pile or truck, you must collect fuel samples according to paragraphs (c)(2)(i) through (iii) of this section.

(i) For each composite sample, you must select a minimum of five sampling locations uniformly spaced over the surface of the pile.

(ii) At each sampling site, you must dig into the pile to a uniform depth of approximately 18 inches. You must insert a clean shovel into the hole and withdraw a sample, making sure that large pieces do not fall off during sampling; use the same shovel to collect all samples.

(iii) You must transfer all samples to a clean plastic bag for further processing.

(d) You must prepare each composite sample according to the procedures in paragraphs (d)(1) through (7) of this section.

(1) You must thoroughly mix and pour the entire composite sample over a clean plastic sheet.

(2) You must break large sample pieces (e.g., larger than 3 inches) into smaller sizes.

(3) You must make a pie shape with the entire composite sample and subdivide it into four equal parts.

(4) You must separate one of the quarter samples as the first subset.

(5) If this subset is too large for grinding, you must repeat the procedure in paragraph (d)(3) of this section with the quarter sample and obtain a one-quarter subset from this sample.

(6) You must grind the sample in a mill.

(7) You must use the procedure in paragraph (d)(3) of this section to obtain a one-quarter subsample for analysis. If the quarter sample is too large, subdivide it further using the same procedure.

(e) You must determine the concentration of pollutants in the fuel (mercury and/or chlorine and/or TSM) in units of pounds per million Btu of each composite sample for each fuel type according to the procedures in Table 6 to this subpart, for use in Equations 7, 8, and 9 of this subpart.

(f) To demonstrate that a gaseous fuel other than natural gas or refinery gas qualifies as an other gas 1 fuel, as defined in § 63.7575, you must conduct a fuel specification analyses for mercury according to the procedures in paragraphs (g) through (i) of this section and Table 6 to this subpart, as applicable, except as specified in paragraph (f)(1) through (4) of this section, or as an alternative where fuel specification analysis is not practical, you must measure mercury concentration in the exhaust gas when firing only the gaseous fuel to be demonstrated as an other gas 1 fuel in the boiler or process heater according to the procedures in Table 6 to this subpart.

(1) You are not required to conduct the fuel specification analyses in paragraphs (g) through (i) of this section for natural gas or refinery gas.

(2) You are not required to conduct the fuel specification analyses in paragraphs (g) through (i) of this section for gaseous fuels that are subject to another subpart of this part, part 60, part 61, or part 65.

(3) You are not required to conduct the fuel specification analyses in paragraphs (g) through (i) of this section on gaseous fuels for units that are complying with the limits for units designed to burn gas 2 (other) fuels.

(4) You are not required to conduct the fuel specification analyses in paragraphs (g) through (i) of this section for gas streams directly derived from natural gas at natural gas production sites or natural gas plants.

(g) You must develop a site-specific fuel analysis plan for other gas 1 fuels according to the following procedures and requirements in paragraphs (g)(1) and (2) of this section.

(1) If you intend to use an alternative analytical method other than those required by Table 6 to this subpart, you must submit the fuel analysis plan to the Administrator for review and approval no later than 60 days before the date that you intend to conduct the initial compliance demonstration described in § 63.7510.

(2) You must include the information contained in paragraphs (g)(2)(i) through (vi) of this section in your fuel analysis plan.

(i) The identification of all gaseous fuel types other than those exempted from fuel specification analysis under (f)(1) through (3) of this section anticipated to be burned in each boiler or process heater.

(ii) For each anticipated fuel type, the identification of whether you or a fuel supplier will be conducting the fuel specification analysis.

(iii) For each anticipated fuel type, a detailed description of the sample location and specific procedures to be used for collecting and preparing the samples if your procedures are different

from the sampling methods contained in Table 6 to this subpart. Samples should be collected at a location that most accurately represents the fuel type, where possible, at a point prior to mixing with other dissimilar fuel types. If multiple boilers or process heaters are fueled by a common fuel stream it is permissible to conduct a single gas specification at the common point of gas distribution.

(iv) For each anticipated fuel type, the analytical methods from Table 6 to this subpart, with the expected minimum detection levels, to be used for the measurement of mercury.

(v) If you request to use an alternative analytical method other than those required by Table 6 to this subpart, you must also include a detailed description of the methods and procedures that you are proposing to use. Methods in Table 6 to this subpart shall be used until the requested alternative is approved.

(vi) If you will be using fuel analysis from a fuel supplier in lieu of site-specific sampling and analysis, the fuel supplier must use the analytical methods required by Table 6 to this subpart. When using a fuel supplier's fuel analysis, the owner or operator is not required to submit the information in § 63.7521(g)(2)(iii).

(h) You must obtain a single fuel sample for each fuel type for fuel specification of gaseous fuels.

(i) You must determine the concentration in the fuel of mercury, in units of microgram per cubic meter, dry basis, of each sample for each other gas 1 fuel type according to the procedures in Table 6 to this subpart.

§ 63.7522 Can I use emissions averaging to comply with this subpart?

(a) As an alternative to meeting the requirements of § 63.7500 for PM (or TSM), HCl, or mercury on a boiler or process heater-specific basis, if you have more than one existing boiler or process heater in any subcategories located at your facility, you may demonstrate compliance by emissions averaging, if your averaged emissions are not more than 90 percent of the applicable emission limit, according to the procedures in this section. You may not include new boilers or process heaters in an emissions average.

(b) For a group of two or more existing boilers or process heaters in the same subcategory that each vent to a separate stack, you may average PM (or TSM), HCl, or mercury emissions among existing units to demonstrate compliance with the limits in Table 2 or 15 to this subpart as specified in paragraphs (b)(1) through (3) of this section, if you satisfy the requirements in paragraphs (c) through (g) of this section.

(1) You may average units using a CEMS or PM CPMS for demonstrating compliance.

(2) For mercury and HCl, averaging is allowed as follows:

(i) You may average among units in any of the solid fuel subcategories.

(ii) You may average among units in any of the liquid fuel subcategories.

(iii) You may average among units in a subcategory of units designed to burn gas 2 (other) fuels.

(iv) You may not average across the units designed to burn liquid, units designed to burn solid fuel, and units designed to burn gas 2 (other) subcategories.

(3) For PM (or TSM), averaging is only allowed between units within each of the following subcategories and you may not average across subcategories:

- (i) Units designed to burn coal/solid fossil fuel.
- (ii) Stokers/sloped grate/other units designed to burn kiln dried biomass/bio-based solids.
- (iii) Stokers/sloped grate/other units designed to burn wet biomass/bio-based solids.
- (iv) Fluidized bed units designed to burn biomass/bio-based solid.
- (v) Suspension burners designed to burn biomass/bio-based solid.
- (vi) Dutch ovens/pile burners designed to burn biomass/bio-based solid.
- (vii) Fuel Cells designed to burn biomass/bio-based solid.
- (viii) Hybrid suspension/grate burners designed to burn wet biomass/bio-based solid.
- (ix) Units designed to burn heavy liquid fuel.
- (x) Units designed to burn light liquid fuel.
- (xi) Units designed to burn liquid fuel that are non-continental units.
- (xii) Units designed to burn gas 2 (other) gases.

(c) For each existing boiler or process heater in the averaging group, the emission rate achieved during the initial compliance test for the HAP being averaged must not exceed the emission level that was being achieved on April 1, 2013 or the control technology employed during the initial compliance test must not be less effective for the HAP being averaged than the control technology employed on April 1, 2013.

(d) The averaged emissions rate from the existing boilers and process heaters participating in the emissions averaging option must not exceed 90 percent of the limits in Table 2 or 15 to this subpart at all times the affected units are subject to numeric emission limits following the compliance date specified in § 63.7495.

(e) You must demonstrate initial compliance according to paragraph (e)(1) or (2) of this section using the maximum rated heat input capacity or maximum steam generation capacity of each unit and the results of the initial performance tests or fuel analysis.

(1) You must use Equation 1a or 1b or 1c to this paragraph (e)(1) to demonstrate that the PM (or TSM), HCl, or mercury emissions from all existing units participating in the emissions averaging option for that pollutant do not exceed the emission limits in Table 2 or 15 to this subpart. Use Equation 1a if you are complying with the emission limits on a heat input basis, use Equation 1b if you are complying with the emission limits on a steam generation (output) basis, and use Equation 1c if you are complying with the emission limits on an electric generation (output) basis.

Equation 1a to paragraph (e)(1)

$$AveWeightedEmissions = 1.1 \times \sum_{i=1}^n (Er \times Hm) \div \sum_{i=1}^n Hm \quad (\text{Eq. 1a})$$

Where:

AveWeightedEmissions = Average weighted emissions for PM (or TSM), HCl, or mercury, in units of pounds per million Btu of heat input.

Er = Emission rate (as determined during the initial compliance demonstration) of PM (or TSM), HCl, or mercury from unit, i , in units of pounds per million Btu of heat input. Determine the emission rate for PM (or TSM), HCl, or mercury by performance testing according to Table 5 to this subpart, or by fuel analysis for HCl or mercury or TSM using the applicable equation in § 63.7530(c).

Hm = Maximum rated heat input capacity of unit, i , in units of million Btu per hour.

n = Number of units participating in the emissions averaging option.

1.1 = Required discount factor.

Equation 1b to paragraph (e)(1)

$$AveWeightedEmissions = 1.1 \times \sum_{i=1}^n (Er \times So) \div \sum_{i=1}^n So \quad (Eq. 1b)$$

Where:

$AveWeightedEmissions$ = Average weighted emissions for PM (or TSM), HCl, or mercury, in units of pounds per million Btu of steam output.

Er = Emission rate (as determined during the initial compliance demonstration) of PM (or TSM), HCl, or mercury from unit, i , in units of pounds per million Btu of steam output. Determine the emission rate for PM (or TSM), HCl, or mercury by performance testing according to Table 5 to this subpart, or by fuel analysis for HCl or mercury or TSM using the applicable equation in § 63.7530(c). If you are taking credit for energy conservation measures from a unit according to § 63.7533, use the adjusted emission level for that unit, E_{adj} , determined according to § 63.7533 for that unit.

So = Maximum steam output capacity of unit, i , in units of million Btu per hour, as defined in § 63.7575.

n = Number of units participating in the emissions averaging option.

1.1 = Required discount factor.

Equation 1c to paragraph (e)(1)

$$AveWeightedEmissions = 1.1 \times \sum_{i=1}^n (Er \times Eo) \div \sum_{i=1}^n Eo \quad (Eq. 1c)$$

Where:

$AveWeightedEmissions$ = Average weighted emissions for PM (or TSM), HCl, or mercury, in units of pounds per megawatt hour.

Er = Emission rate (as determined during the initial compliance demonstration) of PM (or TSM), HCl, or mercury from unit, i , in units of pounds per megawatt hour. Determine the emission rate for PM (or TSM), HCl, or mercury by performance testing according to Table 5 to this subpart, or by fuel analysis for HCl or mercury or TSM using the applicable equation in § 63.7530(c). If you are taking credit for energy conservation measures from a unit according to § 63.7533, use the adjusted emission level for that unit, E_{adj} , determined according to § 63.7533 for that unit.

E_o = Maximum electric generating output capacity of unit, i , in units of megawatt hour, as defined in § 63.7575.

n = Number of units participating in the emissions averaging option.

1.1 = Required discount factor.

(2) If you are not capable of determining the maximum rated heat input capacity of one or more boilers that generate steam, you may use Equation 2 to this paragraph (e)(2) as an alternative to using Equation 1a of paragraph (e)(1) of this section to demonstrate that the PM (or TSM), HCl, or mercury emissions from all existing units participating in the emissions averaging option do not exceed the emission limits for that pollutant in Table 2 or 15 to this subpart that are in pounds per million Btu of heat input.

Equation 2 to paragraph (e)(2)

$$AveWeightedEmissions = 1.1 \times \sum_{i=1}^n (E_r \times S_m \times C_{fi}) \div \sum_{i=1}^n (S_m \times C_{fi}) \quad (\text{Eq. 2})$$

Where:

$AveWeightedEmissions$ = Average weighted emission level for PM (or TSM), HCl, or mercury, in units of pounds per million Btu of heat input.

E_r = Emission rate (as determined during the most recent compliance demonstration) of PM (or TSM), HCl, or mercury from unit, i , in units of pounds per million Btu of heat input. Determine the emission rate for PM (or TSM), HCl, or mercury by performance testing according to Table 5 to this subpart, or by fuel analysis for HCl or mercury or TSM using the applicable equation in § 63.7530(c).

S_m = Maximum steam generation capacity by unit, i , in units of pounds per hour.

C_{fi} = Conversion factor, calculated from the most recent compliance test, in units of million Btu of heat input per pounds of steam generated for unit, i .

1.1 = Required discount factor.

(f) After the initial compliance demonstration described in paragraph (e) of this section, you must demonstrate compliance on a monthly basis determined at the end of every month (12 times per year) according to paragraphs (f)(1) through (3) of this section. The first monthly period begins on the compliance date specified in § 63.7495. If the affected source elects to collect monthly data for up the 11 months preceding the first monthly period, these additional data points can be used to compute the 12-month rolling average in paragraph (f)(3) of this section.

(1) For each calendar month, you must use Equation 3a or 3b or 3c of this section to calculate the average weighted emission rate for that month. Use Equation 3a and the actual heat input for the month for each existing unit participating in the emissions averaging option if you are complying with emission limits on a heat input basis. Use Equation 3b and the actual steam generation for the month if you are complying with the emission limits on a steam generation (output) basis. Use Equation 3c and the actual electrical generation for the month if you are complying with the emission limits on an electrical generation (output) basis.

$$AveWeightedEmissions = 1.1 \times \sum_{i=1}^n (Er \times Hb) \div \sum_{i=1}^n Hb \quad (\text{Eq. 3a})$$

Where:

AveWeightedEmissions = Average weighted emission level for PM (or TSM), HCl, or mercury, in units of pounds per million Btu of heat input, for that calendar month.

Er = Emission rate (as determined during the most recent compliance demonstration) of PM (or TSM), HCl, or mercury from unit, i, in units of pounds per million Btu of heat input. Determine the emission rate for PM (or TSM), HCl, or mercury by performance testing according to Table 5 to this subpart, or by fuel analysis for HCl or mercury or TSM according to Table 6 to this subpart.

Hb = The heat input for that calendar month to unit, i, in units of million Btu.

n = Number of units participating in the emissions averaging option.

1.1 = Required discount factor.

$$AveWeightedEmissions = 1.1 \times \sum_{i=1}^n (Er \times So) \div \sum_{i=1}^n So \quad (\text{Eq. 3b})$$

Where:

AveWeightedEmissions = Average weighted emission level for PM (or TSM), HCl, or mercury, in units of pounds per million Btu of steam output, for that calendar month.

Er = Emission rate (as determined during the most recent compliance demonstration) of PM (or TSM), HCl, or mercury from unit, i, in units of pounds per million Btu of steam output. Determine the emission rate for PM (or TSM), HCl, or mercury by performance testing according to Table 5 to this subpart, or by fuel analysis for HCl or mercury or TSM according to Table 6 to this subpart. If you are taking credit for energy conservation measures from a unit according to § 63.7533, use the adjusted emission level for that unit, E_{adj} , determined according to § 63.7533 for that unit.

So = The steam output for that calendar month from unit, i, in units of million Btu, as defined in § 63.7575.

n = Number of units participating in the emissions averaging option.

1.1 = Required discount factor.

$$AveWeightedEmissions = 1.1 \times \sum_{i=1}^n (Er \times Eo) \div \sum_{i=1}^n Eo \quad (\text{Eq. 3c})$$

Where:

AveWeightedEmissions = Average weighted emission level for PM (or TSM), HCl, or mercury, in units of pounds per megawatt hour, for that calendar month.

Er = Emission rate (as determined during the most recent compliance demonstration) of PM (or TSM), HCl, or mercury from unit, i, in units of pounds per megawatt hour. Determine the emission rate for PM (or TSM), HCl, or mercury by performance testing according to Table 5 to this subpart, or by fuel analysis for HCl or mercury

or TSM according to Table 6 to this subpart. If you are taking credit for energy conservation measures from a unit according to § 63.7533, use the adjusted emission level for that unit, E_{adj} , determined according to § 63.7533 for that unit.

E_o = The electric generating output for that calendar month from unit, i , in units of megawatt hour, as defined in § 63.7575.

n = Number of units participating in the emissions averaging option.

1.1 = Required discount factor.

(2) If you are not capable of monitoring heat input, you may use Equation 4 of this section as an alternative to using Equation 3a of this section to calculate the average weighted emission rate using the actual steam generation from the boilers participating in the emissions averaging option.

$$AveWeightedEmissions = 1.1 \times \sum_{i=1}^n (Er \times Sa \times Cfi) \div \sum_{i=1}^n (Sa \times Cfi) \quad (\text{Eq. 4})$$

Where:

$AveWeightedEmissions$ = average weighted emission level for PM (or TSM), HCl, or mercury, in units of pounds per million Btu of heat input for that calendar month.

Er = Emission rate (as determined during the most recent compliance demonstration of PM (or TSM), HCl, or mercury from unit, i , in units of pounds per million Btu of heat input. Determine the emission rate for PM (or TSM), HCl, or mercury by performance testing according to Table 5 to this subpart, or by fuel analysis for HCl or mercury or TSM according to Table 6 to this subpart.

Sa = Actual steam generation for that calendar month by boiler, i , in units of pounds.

Cfi = Conversion factor, as calculated during the most recent compliance test, in units of million Btu of heat input per pounds of steam generated for boiler, i .

1.1 = Required discount factor.

(3) Until 12 monthly weighted average emission rates have been accumulated, calculate and report only the average weighted emission rate determined under paragraph (f)(1) or (2) of this section for each calendar month. After 12 monthly weighted average emission rates have been accumulated, for each subsequent calendar month, use Equation 5 of this section to calculate the 12-month rolling average of the monthly weighted average emission rates for the current calendar month and the previous 11 calendar months.

$$E_{avg} = \sum_{i=1}^n ER_i \div 12 \quad (\text{Eq. 5})$$

Where:

E_{avg} = 12-month rolling average emission rate, (pounds per million Btu heat input)

ER_i = Monthly weighted average, for calendar month “ i ” (pounds per million Btu heat input), as calculated by paragraph (f)(1) or (2) of this section.

(g) You must develop, and submit upon request to the applicable Administrator for review and approval, an implementation plan for emission averaging according to the following procedures and requirements in paragraphs (g)(1) through (4) of this section.

(1) If requested, you must submit the implementation plan no later than 180 days before the date that the facility intends to demonstrate compliance using the emission averaging option.

(2) You must include the information contained in paragraphs (g)(2)(i) through (vii) of this section in your implementation plan for all emission sources included in an emissions average:

(i) The identification of all existing boilers and process heaters in the averaging group, including for each either the applicable HAP emission level or the control technology installed as of January 31, 2013 and the date on which you are requesting emission averaging to commence;

(ii) The process parameter (heat input or steam generated) that will be monitored for each averaging group;

(iii) The specific control technology or pollution prevention measure to be used for each emission boiler or process heater in the averaging group and the date of its installation or application. If the pollution prevention measure reduces or eliminates emissions from multiple boilers or process heaters, the owner or operator must identify each boiler or process heater;

(iv) The test plan for the measurement of PM (or TSM), HCl, or mercury emissions in accordance with the requirements in § 63.7520;

(v) The operating parameters to be monitored for each control system or device consistent with § 63.7500 and Table 4, and a description of how the operating limits will be determined;

(vi) If you request to monitor an alternative operating parameter pursuant to § 63.7525, you must also include:

(A) A description of the parameter(s) to be monitored and an explanation of the criteria used to select the parameter(s); and

(B) A description of the methods and procedures that will be used to demonstrate that the parameter indicates proper operation of the control device; the frequency and content of monitoring, reporting, and recordkeeping requirements; and a demonstration, to the satisfaction of the Administrator, that the proposed monitoring frequency is sufficient to represent control device operating conditions; and

(vii) A demonstration that compliance with each of the applicable emission limit(s) will be achieved under representative operating load conditions. Following each compliance demonstration and until the next compliance demonstration, you must comply with the operating limit for operating load conditions specified in Table 4 to this subpart.

(3) If submitted upon request, the Administrator shall review and approve or disapprove the plan according to the following criteria:

(i) Whether the content of the plan includes all of the information specified in paragraph (g)(2) of this section; and

(ii) Whether the plan presents sufficient information to determine that compliance will be achieved and maintained.

(4) The applicable Administrator shall not approve an emission averaging implementation plan containing any of the following provisions:

(i) Any averaging between emissions of differing pollutants or between differing sources; or

(ii) The inclusion of any emission source other than an existing unit in the same subcategories.

(h) For a group of two or more existing affected units, each of which vents through a single common stack, you may average PM (or TSM), HCl, or mercury emissions to demonstrate compliance with the limits for that pollutant in Table 2 or 15 to this subpart if you satisfy the requirements in paragraph (i) or (j) of this section.

(i) For a group of two or more existing units in the same subcategory, each of which vents through a common emissions control system to a common stack, that does not receive emissions from units in other subcategories or categories, you may treat such averaging group as a single existing unit for purposes of this subpart and comply with the requirements of this subpart as if the group were a single unit.

(j) For all other groups of units subject to the common stack requirements of paragraph (h) of this section, including situations where the exhaust of affected units are each individually controlled and then sent to a common stack, the owner or operator may elect to:

(1) Conduct performance tests according to procedures specified in § 63.7520 in the common stack if affected units from other subcategories vent to the common stack. The emission limits that the group must comply with are determined by the use of Equation 6 to this paragraph (j)(1).

Equation 6 to paragraph (j)(1)

$$En = \sum_{i=1}^n (ELi \times Hi) + \sum_{i=1}^n Hi \quad (\text{Eq. 6})$$

Where:

En = HAP emission limit, pounds per million British thermal units (lb/MMBtu) or parts per million (ppm).

ELi = Appropriate emission limit from Table 2 or 15 to this subpart for unit i , in units of lb/MMBtu or ppm.

Hi = Heat input from unit i , MMBtu.

(2) Conduct performance tests according to procedures specified in § 63.7520 in the common stack. If affected units and non-affected units vent to the common stack, the non-affected units must be shut down or vented to a different stack during the performance test unless the facility determines to demonstrate compliance with the non-affected units venting to the stack; and

(3) Meet the applicable operating limit specified in § 63.7540 and Table 8 to this subpart for each emissions control system (except that, if each unit venting to the common stack has an applicable opacity operating limit, then a single continuous opacity monitoring system may be located in the common stack instead of in each duct to the common stack).

(k) The common stack of a group of two or more existing boilers or process heaters in the same subcategories subject to paragraph (h) of this section may be treated as a separate stack for purposes of paragraph (b) of this section and included in an emissions averaging group subject to paragraph (b) of this section.

§ 63.7525 What are my monitoring, installation, operation, and maintenance requirements?

(a) If your boiler or process heater is subject to a CO emission limit in Table 1 or 2 or Tables 11 through 15 to this subpart, you must install, operate, and maintain an oxygen analyzer system, as defined in § 63.7575, or install, certify, operate and maintain continuous emission monitoring systems for CO and oxygen (O₂) (or carbon dioxide (CO₂)) according to the procedures in paragraphs (a)(1) through (6) of this section.

(1) Install the CO CEMS including an O₂ (or CO₂) analyzer by the compliance date specified in § 63.7495. The CO and O₂ (or CO₂) levels shall be monitored at the same location at the outlet of the boiler or process heater. An owner or operator may determine compliance with the CO emissions limit using a CO₂ analyzer as the diluent monitor. If a CO₂ analyzer is used as the diluent monitor, EPA Method 19 F-factors in 40 CFR part 60, appendix A-7, for the fuel type(s) being burned in the unit and EPA Method 19 equations in 40 CFR part 60, appendix A-7, must be used to calculate the emissions corrected to 3 percent O₂ using the measured CO₂ percentage, and must also take into account that the 3 percent oxygen correction is to be done on a dry basis. The equations used to calculate the emissions, must also account for any CO₂ being added to, or removed from, the emissions gas stream as a result of limestone injection, scrubber media, etc. The methodology used to calculate the CO emissions and the methodology used to account for any CO₂ being added to, or removed from the emissions gas stream shall be detailed and approved in the site-specific monitoring plan developed according to § 63.7505(d).

(2) To demonstrate compliance with the applicable alternative CO CEMS emission standard listed in Table 1 or 2 or Tables 11 through 15 to this subpart, you must install, certify, operate, and maintain a CO CEMS and an oxygen analyzer according to the applicable procedures under Performance Specification 4, 4A, or 4B at 40 CFR part 60, appendix B; part 75 of this chapter (if an CO₂ analyzer is used); the site-specific monitoring plan developed according to § 63.7505(d); and the requirements in § 63.7540(a)(8) and this paragraph (a). Any boiler or process heater that has a CO CEMS that is compliant with Performance Specification 4, 4A, or 4B at 40 CFR part 60, appendix B, a site-specific monitoring plan developed according to § 63.7505(d), and the requirements in § 63.7540(a)(8) and this paragraph (a) must use the CO CEMS to comply with the applicable alternative CO CEMS emission standard listed in Table 1 or 2 or Tables 11 through 15 to this subpart.

(i) You must conduct a performance evaluation of each CO CEMS according to the requirements in § 63.8(e) and according to Performance Specification 4, 4A, or 4B at 40 CFR part 60, appendix B.

(ii) During each relative accuracy test run of the CO CEMS, you must collect emission data for CO concurrently using both the CO CEMS and Method 10, 10A, or 10B at 40 CFR part 60, appendix A-4. The relative accuracy testing must be conducted at representative operating conditions.

- (iii) You must follow the quality assurance procedures (e.g., quarterly accuracy determinations and daily calibration drift tests) of Procedure 1 of appendix F to part 60. The measurement span value of the CO CEMS must be two times the applicable CO emission limit, expressed as a concentration.
 - (iv) Any CO CEMS that does not comply with this paragraph (a) cannot be used to meet any requirement in this subpart to demonstrate compliance with a CO emission limit listed in Table 1 or 2 or Tables 11 through 15 to this subpart.
 - (v) For a new unit, complete the initial performance evaluation no later than July 30, 2013, or 180 days after the date of initial startup, whichever is later. For an existing unit, complete the initial performance evaluation no later than July 29, 2016.
 - (vi) When CO₂ is used to correct CO emissions and CO₂ is measured on a wet basis, if needed, correct for moisture as follows: Install, operate, maintain, and quality assure a continuous moisture monitoring system for measuring and recording the moisture content of the flue gases, in order to correct the measured hourly volumetric flow rates for moisture when calculating CO concentrations. The following continuous moisture monitoring systems are acceptable: a continuous moisture sensor; an oxygen analyzer (or analyzers) capable of measuring O₂ both on a wet basis and on a dry basis; or a stack temperature sensor and a moisture look-up table, *i.e.*, a psychrometric chart (for saturated gas streams following wet scrubbers or other demonstrably saturated gas streams, only). The moisture monitoring system shall include as a component the automated data acquisition and handling system (DAHS) for recording and reporting both the raw data (e.g., hourly average wet-and dry-basis O₂ values) and the hourly average values of the stack gas moisture content derived from those data. When a moisture look-up table is used, the moisture monitoring system shall be represented as a single component, the certified DAHS, in the monitoring plan for the unit or common stack.
- (3) Complete a minimum of one cycle of CO and oxygen (or CO₂) CEMS operation (sampling, analyzing, and data recording) for each successive 15-minute period. Collect CO and oxygen (or CO₂) data concurrently. Collect at least four CO and oxygen (or CO₂) CEMS data values representing the four 15-minute periods in an hour, or at least two 15-minute data values during an hour when CEMS calibration, quality assurance, or maintenance activities are being performed.
- (4) Reduce the CO CEMS data as specified in § 63.8(g)(2).
- (5) Calculate one-hour arithmetic averages, corrected to 3 percent oxygen (or corrected to an CO₂ percentage determined to be equivalent to 3 percent oxygen) from each hour of CO CEMS data in parts per million CO concentration. The one-hour arithmetic averages required shall be used to calculate the 30-day or 10-day rolling average emissions. Use Equation 19-19 in section 12.4.1 of Method 19 of 40 CFR part 60, appendix A-7 for calculating the average CO concentration from the hourly values.
- (6) For purposes of collecting CO data, operate the CO CEMS as specified in § 63.7535(b). You must use all the data collected during all periods in calculating data averages and assessing compliance, except that you must exclude certain data as specified in § 63.7535(c). Periods when CO data are unavailable may constitute monitoring deviations as specified in § 63.7535(d).

(7) Operate an oxygen trim system with the oxygen level set no lower than the lowest hourly average oxygen concentration measured during the most recent CO performance test as the operating limit for oxygen according to Table 7 to this subpart.

(b) If your boiler or process heater is in the unit designed to burn coal/solid fossil fuel subcategory or the unit designed to burn heavy liquid subcategory and has an average annual heat input rate greater than 250 MMBtu per hour from solid fossil fuel and/or heavy liquid, and you demonstrate compliance with the PM limit instead of the alternative TSM limit, you must install, maintain, and operate a PM CPMS monitoring emissions discharged to the atmosphere and record the output of the system as specified in paragraphs (b)(1) through (4) of this section. As an alternative to use of a PM CPMS to demonstrate compliance with the PM limit, you may choose to use a PM CEMS. If you choose to use a PM CEMS to demonstrate compliance with the PM limit instead of the alternative TSM limit, you must install, certify, maintain, and operate a PM CEMS monitoring emissions discharged to the atmosphere and record the output of the system as specified in paragraph (b)(5) through (8) of this section. For other boilers or process heaters, you may elect to use a PM CPMS or PM CEMS operated in accordance with this section in lieu of using other CMS for monitoring PM compliance (*e.g.*, bag leak detectors, ESP secondary power, and PM scrubber pressure). Owners of boilers and process heaters who elect to comply with the alternative TSM limit are not required to install a PM CPMS.

(1) Install, operate, and maintain your PM CPMS according to the procedures in your approved site-specific monitoring plan developed in accordance with § 63.7505(d), the requirements in § 63.7540(a)(9), and paragraphs (b)(1)(i) through (iii) of this section.

(i) The operating principle of the PM CPMS must be based on in-stack or extractive light scatter, light scintillation, beta attenuation, or mass accumulation detection of PM in the exhaust gas or representative exhaust gas sample. The reportable measurement output from the PM CPMS must be expressed as milliamps.

(ii) The PM CPMS must have a cycle time (*i.e.*, period required to complete sampling, measurement, and reporting for each measurement) no longer than 60 minutes.

(iii) The PM CPMS must have a documented detection limit of 0.5 milligram per actual cubic meter, or less.

(2) For a new unit, complete the initial performance evaluation no later than July 30, 2013, or 180 days after the date of initial startup, whichever is later. For an existing unit, complete the initial performance evaluation no later than July 29, 2016.

(3) Collect PM CPMS hourly average output data for all boiler or process heater operating hours except as indicated in § 63.7535(a) through (d). Express the PM CPMS output as milliamps.

(4) Calculate the arithmetic 30-day rolling average of all of the hourly average PM CPMS output data collected during all boiler or process heater operating hours (milliamps).

(5) Install, certify, operate, and maintain your PM CEMS according to the procedures in your approved site-specific monitoring plan developed in accordance with § 63.7505(d), the requirements in § 63.7540(a)(9), and paragraphs (b)(5)(i) through (iv) of this section.

(i) You shall conduct a performance evaluation of the PM CEMS according to the applicable requirements of § 60.8(e), and Performance Specification 11 at 40 CFR part 60, appendix B of this chapter.

(ii) During each PM correlation testing run of the CEMS required by Performance Specification 11 at 40 CFR part 60, appendix B of this chapter, you shall collect PM and oxygen (or carbon dioxide) data concurrently (or within a 30-to 60-minute period) by both the CEMS and conducting performance tests using Method 5 at 40 CFR part 60, appendix A-3 or Method 17 at 40 CFR part 60, appendix A-6 of this chapter.

(iii) You shall perform quarterly accuracy determinations and daily calibration drift tests in accordance with Procedure 2 at 40 CFR part 60, appendix F of this chapter. You must perform Relative Response Audits annually and perform Response Correlation Audits every 3 years.

(iv) Within 60 days after the date of completing each CEMS relative accuracy test audit or performance test conducted to demonstrate compliance with this subpart, you must submit the relative accuracy test audit data and performance test data to the EPA by successfully submitting the data electronically into the EPA's Central Data Exchange by using the Electronic Reporting Tool (see <http://www.epa.gov/ttn/chief/ert/erttool.html/>).

(6) For a new unit, complete the initial performance evaluation no later than July 30, 2013, or 180 days after the date of initial startup, whichever is later. For an existing unit, complete the initial performance evaluation no later than July 29, 2016.

(7) Collect PM CEMS hourly average output data for all boiler or process heater operating hours except as indicated in § 63.7535(a) through (d).

(8) Calculate the arithmetic 30-day rolling average of all of the hourly average PM CEMS output data collected during all boiler or process heater operating hours.

(c) If you have an applicable opacity operating limit in this rule, and are not otherwise required or elect to install and operate a PM CPMS, PM CEMS, or a bag leak detection system, you must install, operate, certify and maintain each COMS according to the procedures in paragraphs (c)(1) through (7) of this section by the compliance date specified in § 63.7495.

(1) Each COMS must be installed, operated, and maintained according to Performance Specification 1 at appendix B to part 60 of this chapter.

(2) You must conduct a performance evaluation of each COMS according to the requirements in § 63.8(e) and according to Performance Specification 1 at appendix B to part 60 of this chapter.

(3) As specified in § 63.8(c)(4)(i), each COMS must complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.

(4) The COMS data must be reduced as specified in § 63.8(g)(2).

(5) You must include in your site-specific monitoring plan procedures and acceptance criteria for operating and maintaining each COMS according to the requirements in § 63.8(d). At a minimum, the monitoring plan must include a daily calibration drift assessment, a quarterly performance audit, and an annual zero alignment audit of each COMS.

(6) You must operate and maintain each COMS according to the requirements in the monitoring plan and the requirements of § 63.8(e). You must identify periods the COMS is out of control including any periods that the COMS fails to pass a daily calibration drift assessment, a quarterly performance audit, or an annual zero alignment audit. Any 6-minute period for which the monitoring system is out of control and data are not available for a required calculation constitutes a deviation from the monitoring requirements.

(7) You must determine and record all the 6-minute averages (and daily block averages as applicable) collected for periods during which the COMS is not out of control.

(d) If you have an operating limit that requires the use of a CMS other than a PM CPMS or COMS, you must install, operate, and maintain each CMS according to the procedures in paragraphs (d)(1) through (5) of this section by the compliance date specified in § 63.7495.

(1) The CPMS must complete a minimum of one cycle of operation every 15-minutes. You must have a minimum of four successive cycles of operation, one representing each of the four 15-minute periods in an hour, to have a valid hour of data.

(2) You must operate the monitoring system as specified in § 63.7535(b), and comply with the data calculation requirements specified in § 63.7535(c).

(3) Any 15-minute period for which the monitoring system is out-of-control and data are not available for a required calculation constitutes a deviation from the monitoring requirements. Other situations that constitute a monitoring deviation are specified in § 63.7535(d).

(4) You must determine the 30-day rolling average of all recorded readings, except as provided in § 63.7535(c).

(5) You must record the results of each inspection, calibration, and validation check.

(e) If you have an operating limit that requires the use of a flow monitoring system, you must meet the requirements in paragraphs (d) and (e)(1) through (4) of this section.

(1) You must install the flow sensor and other necessary equipment in a position that provides a representative flow.

(2) You must use a flow sensor with a measurement sensitivity of no greater than 2 percent of the design flow rate.

(3) You must minimize, consistent with good engineering practices, the effects of swirling flow or abnormal velocity distributions due to upstream and downstream disturbances.

(4) You must conduct a flow monitoring system performance evaluation in accordance with your monitoring plan at the time of each performance test but no less frequently than annually.

(f) If you have an operating limit that requires the use of a pressure monitoring system, you must meet the requirements in paragraphs (d) and (f)(1) through (6) of this section.

(1) Install the pressure sensor(s) in a position that provides a representative measurement of the pressure (e.g., PM scrubber pressure drop).

(2) Minimize or eliminate pulsating pressure, vibration, and internal and external corrosion consistent with good engineering practices.

(3) Use a pressure sensor with a minimum tolerance of 1.27 centimeters of water or a minimum tolerance of 1 percent of the pressure monitoring system operating range, whichever is less.

(4) Perform checks at least once each process operating day to ensure pressure measurements are not obstructed (e.g., check for pressure tap pluggage daily).

(5) Conduct a performance evaluation of the pressure monitoring system in accordance with your monitoring plan at the time of each performance test but no less frequently than annually.

(6) If at any time the measured pressure exceeds the manufacturer's specified maximum operating pressure range, conduct a performance evaluation of the pressure monitoring system in accordance with your monitoring plan and confirm that the pressure monitoring system continues to meet the performance requirements in your monitoring plan. Alternatively, install and verify the operation of a new pressure sensor.

(g) If you have an operating limit that requires a pH monitoring system, you must meet the requirements in paragraphs (d) and (g)(1) through (4) of this section.

(1) Install the pH sensor in a position that provides a representative measurement of scrubber effluent pH.

(2) Ensure the sample is properly mixed and representative of the fluid to be measured.

(3) Calibrate the pH monitoring system in accordance with your monitoring plan and according to the manufacturer's instructions. Clean the pH probe at least once each process operating day. Maintain on-site documentation that your calibration frequency is sufficient to maintain the specified accuracy of your device.

(4) Conduct a performance evaluation (including a two-point calibration with one of the two buffer solutions having a pH within 1 of the pH of the operating limit) of the pH monitoring system in accordance with your monitoring plan at the time of each performance test but no less frequently than annually.

(h) If you have an operating limit that requires a secondary electric power monitoring system for an electrostatic precipitator (ESP) operated with a wet scrubber, you must meet the requirements in paragraphs (h)(1) and (2) of this section.

(1) Install sensors to measure (secondary) voltage and current to the precipitator collection plates.

(2) Conduct a performance evaluation of the electric power monitoring system in accordance with your monitoring plan at the time of each performance test but no less frequently than annually.

(i) If you have an operating limit that requires the use of a monitoring system to measure sorbent injection rate (e.g., weigh belt, weigh hopper, or hopper flow measurement device), you must meet the requirements in paragraphs (d) and (i)(1) through (2) of this section.

(1) Install the system in a position(s) that provides a representative measurement of the total sorbent injection rate.

(2) Conduct a performance evaluation of the sorbent injection rate monitoring system in accordance with your monitoring plan at the time of each performance test but no less frequently than annually.

(j) If you are not required to use a PM CPMS and elect to use a fabric filter bag leak detection system to comply with the requirements of this subpart, you must install, calibrate, maintain, and continuously operate the bag leak detection system as specified in paragraphs (j)(1) through (6) of this section.

(1) You must install a bag leak detection sensor(s) in a position(s) that will be representative of the relative or absolute PM loadings for each exhaust stack, roof vent, or compartment (e.g., for a positive pressure fabric filter) of the fabric filter.

(2) Conduct a performance evaluation of the bag leak detection system in accordance with your monitoring plan and consistent with the guidance provided in EPA-454/R-98-015 (incorporated by reference, see § 63.14).

(3) Use a bag leak detection system certified by the manufacturer to be capable of detecting PM emissions at concentrations of 10 milligrams per actual cubic meter or less.

(4) Use a bag leak detection system equipped with a device to record continuously the output signal from the sensor.

(5) Use a bag leak detection system equipped with a system that will alert plant operating personnel when an increase in relative PM emissions over a preset level is detected. The alert must easily recognizable (e.g., heard or seen) by plant operating personnel.

(6) Where multiple bag leak detectors are required, the system's instrumentation and alert may be shared among detectors.

(k) For each unit that meets the definition of limited-use boiler or process heater, you must keep fuel use records for the days the boiler or process heater was operating.

(l) For each unit for which you decide to demonstrate compliance with the mercury or HCl emissions limits in Table 1 or 2 or Tables 11 through 15 to this subpart by use of a CEMS for mercury or HCl, you must install, certify, maintain, and operate a CEMS measuring emissions discharged to the atmosphere and record the output of the system as specified in paragraphs (l)(1) through (8) of this section. For HCl, this option for an affected unit takes effect on the date of approval of a site-specific monitoring plan.

(1) Notify the Administrator one month before starting use of the CEMS, and notify the Administrator one month before stopping use of the CEMS.

(2) Each CEMS shall be installed, certified, operated, and maintained according to the requirements in § 63.7540(a)(14) for a mercury CEMS and § 63.7540(a)(15) for a HCl CEMS.

(3) For a new unit, you must complete the initial performance evaluation of the CEMS by the latest of the dates specified in paragraph (l)(3)(i) through (iii) of this section.

(i) No later than July 30, 2013.

(ii) No later 180 days after the date of initial startup.

(iii) No later 180 days after notifying the Administrator before starting to use the CEMS in place of performance testing or fuel analysis to demonstrate compliance.

(4) For an existing unit, you must complete the initial performance evaluation by the latter of the two dates specified in paragraph (l)(4)(i) and (ii) of this section.

- (i) No later than July 29, 2016.
- (ii) No later 180 days after notifying the Administrator before starting to use the CEMS in place of performance testing or fuel analysis to demonstrate compliance.

(5) Compliance with the applicable emissions limit shall be determined based on the 30-day rolling average of the hourly arithmetic average emissions rates using the continuous monitoring system outlet data. The 30-day rolling arithmetic average emission rate (lb/MMBtu) shall be calculated using the equations in EPA Reference Method 19 at 40 CFR part 60, appendix A-7, but substituting the mercury or HCl concentration for the pollutant concentrations normally used in Method 19.

(6) Collect CEMS hourly averages for all operating hours on a 30-day rolling average basis. Collect at least four CMS data values representing the four 15-minute periods in an hour, or at least two 15-minute data values during an hour when CMS calibration, quality assurance, or maintenance activities are being performed.

(7) The one-hour arithmetic averages required shall be expressed in lb/MMBtu and shall be used to calculate the boiler 30-day and 10-day rolling average emissions.

(8) You are allowed to substitute the use of the PM, mercury or HCl CEMS for the applicable fuel analysis, annual performance test, and operating limits specified in Table 4 to this subpart to demonstrate compliance with the PM, mercury or HCl emissions limit, and if you are using an acid gas wet scrubber or dry sorbent injection control technology to comply with the HCl emission limit, you are allowed to substitute the use of a sulfur dioxide (SO₂) CEMS for the applicable fuel analysis, annual performance test, and operating limits specified in Table 4 to this subpart to demonstrate compliance with HCl emissions limit.

(m) If your unit is subject to a HCl emission limit in Table 1 or 2 or Tables 11 through 15 to this subpart and you have an acid gas wet scrubber or dry sorbent injection control technology and you elect to use an SO₂ CEMS to demonstrate continuous compliance with the HCl emission limit, you must install the monitor at the outlet of the boiler or process heater, downstream of all emission control devices, and you must install, certify, operate, and maintain the CEMS according to either part 60 or part 75 of this chapter.

(1) The SO₂ CEMS must be installed by the compliance date specified in § 63.7495.

(2) For on-going quality assurance (QA), the SO₂ CEMS must meet either the applicable daily and quarterly requirements in Procedure 1 of appendix F of part 60 or the applicable daily, quarterly, and semiannual or annual requirements in sections 2.1 through 2.3 of appendix B to part 75 of this chapter, with the following addition: You must perform the linearity checks required in section 2.2 of appendix B to part 75 of this chapter if the SO₂ CEMS has a span value of 30 ppm or less.

(3) For a new unit, the initial performance evaluation shall be completed no later than July 30, 2013, or 180 days after the date of initial startup, whichever is later. For an existing unit, the initial performance evaluation shall be completed no later than July 29, 2016.

(4) For purposes of collecting SO₂ data, you must operate the SO₂ CEMS as specified in § 63.7535(b). You must use all the data collected during all periods in calculating data averages and assessing compliance, except that you must exclude certain data as specified in § 63.7535(c). Periods when SO₂ data are unavailable may constitute monitoring deviations as specified in § 63.7535(d).

(5) Collect CEMS hourly averages for all operating hours on a 30-day rolling average basis.

(6) Use only unadjusted, quality-assured SO₂ concentration values in the emissions calculations; do not apply bias adjustment factors to the part 75 SO₂ data and do not use part 75 substitute data values.

§ 63.7530 How do I demonstrate initial compliance with the emission limitations, fuel specifications and work practice standards?

(a) You must demonstrate initial compliance with each emission limit that applies to you by conducting initial performance tests and fuel analyses and establishing operating limits, as applicable, according to § 63.7520, paragraphs (b) and (c) of this section, and Tables 5 and 7 to this subpart. The requirement to conduct a fuel analysis is not applicable for units that burn a single type of fuel, as specified by § 63.7510(a)(2). If applicable, you must also install, operate, and maintain all applicable CMS (including CEMS, COMS, and CPMS) according to § 63.7525.

(b) If you demonstrate compliance through performance stack testing, you must establish each site-specific operating limit in Table 4 to this subpart that applies to you according to the requirements in § 63.7520, Table 7 to this subpart, and paragraph (b)(4) of this section, as applicable. You must also conduct fuel analyses according to § 63.7521 and establish maximum fuel pollutant input levels according to paragraphs (b)(1) through (3) of this section, as applicable, and as specified in § 63.7510(a)(2). (Note that § 63.7510(a)(2) exempts certain fuels from the fuel analysis requirements.) However, if you switch fuel(s) and cannot show that the new fuel(s) does (do) not increase the chlorine, mercury, or TSM input into the unit through the results of fuel analysis, then you must repeat the performance test to demonstrate compliance while burning the new fuel(s).

(1) You must establish the maximum chlorine fuel input (C_{input}) during the initial fuel analysis according to the procedures in paragraphs (b)(1)(i) through (iii) of this section.

(i) You must determine the fuel type or fuel mixture that you could burn in your boiler or process heater that has the highest content of chlorine.

(ii) During the fuel analysis for hydrogen chloride, you must determine the fraction of the total heat input for each fuel type burned (Q_i) based on the fuel mixture that has the highest content of chlorine, and the average chlorine concentration of each fuel type burned (C_i).

(iii) You must establish a maximum chlorine input level using Equation 7 of this section.

$$C_{input} = \sum_{i=1}^n (C_i \times Q_i) \quad (\text{Eq. 7})$$

Where:

C_{input} = Maximum amount of chlorine entering the boiler or process heater through fuels burned in units of pounds per million Btu.

C_i = Arithmetic average concentration of chlorine in fuel type, i, analyzed according to § 63.7521, in units of pounds per million Btu.

Q_i = Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest content of chlorine during the initial compliance test. If you do not burn multiple fuel types during the performance

testing, it is not necessary to determine the value of this term. Insert a value of “1” for Q_i . For continuous compliance demonstration, the actual fraction of the fuel burned during the month should be used.

n = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest content of chlorine.

(2) You must establish the maximum mercury fuel input level (Mercuryinput) during the initial fuel analysis using the procedures in paragraphs (b)(2)(i) through (iii) of this section.

(i) You must determine the fuel type or fuel mixture that you could burn in your boiler or process heater that has the highest content of mercury.

(ii) During the compliance demonstration for mercury, you must determine the fraction of total heat input for each fuel burned (Q_i) based on the fuel mixture that has the highest content of mercury, and the average mercury concentration of each fuel type burned (HG_i).

(iii) You must establish a maximum mercury input level using Equation 8 of this section.

$$\text{Mercuryinput} = \sum_{i=1}^n (HG_i \times Q_i) \quad (\text{Eq. 8})$$

Where:

Mercuryinput = Maximum amount of mercury entering the boiler or process heater through fuels burned in units of pounds per million Btu.

HG_i = Arithmetic average concentration of mercury in fuel type, i , analyzed according to § 63.7521, in units of pounds per million Btu.

Q_i = Fraction of total heat input from fuel type, i , based on the fuel mixture that has the highest mercury content during the initial compliance test. If you do not burn multiple fuel types during the performance test, it is not necessary to determine the value of this term. Insert a value of “1” for Q_i . For continuous compliance demonstration, the actual fraction of the fuel burned during the month should be used.

n = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest content of mercury.

(3) If you opt to comply with the alternative TSM limit, you must establish the maximum TSM fuel input (TSMinput) for solid or liquid fuels during the initial fuel analysis according to the procedures in paragraphs (b)(3)(i) through (iii) of this section.

(i) You must determine the fuel type or fuel mixture that you could burn in your boiler or process heater that has the highest content of TSM.

(ii) During the fuel analysis for TSM, you must determine the fraction of the total heat input for each fuel type burned (Q_i) based on the fuel mixture that has the highest content of TSM, and the average TSM concentration of each fuel type burned (TSM_i).

(iii) You must establish a maximum TSM input level using Equation 9 of this section.

$$TSM_{input} = \sum_{i=1}^n (TSM_i \times Q_i) \quad (\text{Eq. 9})$$

Where:

TSM_{input} = Maximum amount of TSM entering the boiler or process heater through fuels burned in units of pounds per million Btu.

TSM_i = Arithmetic average concentration of TSM in fuel type, i , analyzed according to § 63.7521, in units of pounds per million Btu.

Q_i = Fraction of total heat input from fuel type, i , based on the fuel mixture that has the highest content of TSM during the initial compliance test. If you do not burn multiple fuel types during the performance testing, it is not necessary to determine the value of this term. Insert a value of “1” for Q_i . For continuous compliance demonstration, the actual fraction of the fuel burned during the month should be used.

n = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest content of TSM.

(4) You must establish parameter operating limits according to paragraphs (b)(4)(i) through (ix) of this section. As indicated in Table 4 to this subpart, you are not required to establish and comply with the operating parameter limits when you are using a CEMS to monitor and demonstrate compliance with the applicable emission limit for that control device parameter.

(i) For a wet acid gas scrubber, you must establish the minimum scrubber effluent pH and liquid flow rate as defined in § 63.7575, as your operating limits during the performance test during which you demonstrate compliance with your applicable limit. If you use a wet scrubber and you conduct separate performance tests for HCl and mercury emissions, you must establish one set of minimum scrubber effluent pH, liquid flow rate, and pressure drop operating limits. The minimum scrubber effluent pH operating limit must be established during the HCl performance test. If you conduct multiple performance tests, you must set the minimum liquid flow rate operating limit at the higher of the minimum values established during the performance tests.

(ii) For any particulate control device (e.g., ESP, particulate wet scrubber, fabric filter) for which you use a PM CPMS, you must establish your PM CPMS operating limit and determine compliance with it according to paragraphs (b)(4)(ii)(A) through (F) of this section.

(A) Determine your operating limit as the average PM CPMS output value recorded during the most recent performance test run demonstrating compliance with the filterable PM emission limit or at the PM CPMS output value corresponding to 75 percent of the emission limit if your PM performance test demonstrates compliance below 75 percent of the emission limit. You must verify an existing or establish a new operating limit after each repeated performance test. You must repeat the performance test annually and reassess and adjust the site-specific operating limit in accordance with the results of the performance test.

(1) Your PM CPMS must provide a 4-20 milliamp output and the establishment of its relationship to manual reference method measurements must be determined in units of milliamps.

(2) Your PM CPMS operating range must be capable of reading PM concentrations from zero to a level equivalent to at least two times your allowable emission limit. If your PM CPMS is an auto-ranging instrument capable of multiple scales, the primary range of the instrument must be capable of reading PM concentration from zero to a level equivalent to two times your allowable emission limit.

(3) During the initial performance test or any such subsequent performance test that demonstrates compliance with the PM limit, record and average all milliamp output values from the PM CPMS for the periods corresponding to the compliance test runs (e.g., average all your PM CPMS output values for three corresponding 2-hour Method 5I test runs).

(B) If the average of your three PM performance test runs are below 75 percent of your PM emission limit, you must calculate an operating limit by establishing a relationship of PM CPMS signal to PM concentration using the PM CPMS instrument zero, the average PM CPMS values corresponding to the three compliance test runs, and the average PM concentration from the Method 5 or performance test with the procedures in paragraphs (b)(4)(ii)(B)(1) through (4) of this section.

(1) Determine your instrument zero output with one of the following procedures:

(i) Zero point data for *in-situ* instruments should be obtained by removing the instrument from the stack and monitoring ambient air on a test bench.

(ii) Zero point data for *extractive* instruments should be obtained by removing the extractive probe from the stack and drawing in clean ambient air.

(iii) The zero point may also be established by performing manual reference method measurements when the flue gas is free of PM emissions or contains very low PM concentrations (e.g., when your process is not operating, but the fans are operating or your source is combusting only natural gas) and plotting these with the compliance data to find the zero intercept.

(iv) If none of the steps in paragraphs (b)(4)(ii)(B)(1)(i) through (iii) of this section are possible, you must use a zero output value provided by the manufacturer.

(2) Determine your PM CPMS instrument average in milliamps, and the average of your corresponding three PM compliance test runs, using equation 10.

$$\bar{X} = \frac{1}{n} \sum_{i=1}^n X_i, \bar{Y} = \frac{1}{n} \sum_{i=1}^n Y_i \quad (\text{Eq. 10})$$

Where:

X_1 = the PM CPMS data points for the three runs constituting the performance test,
 Y_1 = the PM concentration value for the three runs constituting the performance test, and
 n = the number of data points.

(3) With your instrument zero expressed in milliamps, your three run average PM CPMS milliamp value, and your three run average PM concentration from your three compliance tests, determine a relationship of lb/MMBtu per milliamp with equation 11.

$$R = \frac{Y_1}{(X_1 - z)} \quad (\text{Eq. 11})$$

Where:

R = the relative lb/MMBtu per milliamp for your PM CPMS,
 Y_1 = the three run average lb/MMBtu PM concentration,
 X_1 = the three run average milliamp output from you PM CPMS, and
 z = the milliamp equivalent of your instrument zero determined from (B)(i).

(4) Determine your source specific 30-day rolling average operating limit using the lb/MMBtu per milliamp value from Equation 11 in equation 12, below. This sets your operating limit at the PM CPMS output value corresponding to 75 percent of your emission limit.

$$O_1 = z + \frac{0.75L}{R} \quad (\text{Eq. 12})$$

Where:

O_1 = the operating limit for your PM CPMS on a 30-day rolling average, in milliamps.
 L = your source emission limit expressed in lb/MMBtu,
 z = your instrument zero in milliamps, determined from (B)(i), and
 R = the relative lb/MMBtu per milliamp for your PM CPMS, from Equation 11.

(C) If the average of your three PM compliance test runs is at or above 75 percent of your PM emission limit you must determine your 30-day rolling average operating limit by averaging the PM CPMS milliamp output corresponding to your three PM performance test runs that demonstrate compliance with the emission limit using equation 13 and you must submit all compliance test and PM CPMS data according to the reporting requirements in paragraph (b)(4)(ii)(F) of this section.

$$O_n = \frac{1}{n} \sum_{i=1}^n X_i \quad (\text{Eq. 13})$$

Where:

X_i = the PM CPMS data points for all runs i ,

n = the number of data points, and

O_h = your site specific operating limit, in milliamps.

(D) To determine continuous compliance, you must record the PM CPMS output data for all periods when the process is operating and the PM CPMS is not out-of-control. You must demonstrate continuous compliance by using all quality-assured hourly average data collected by the PM CPMS for all operating hours to calculate the arithmetic average operating parameter in units of the operating limit (milliamps) on a 30-day rolling average basis, updated at the end of each new operating hour. Use Equation 14 to determine the 30-day rolling average.

$$30\text{-day} = \frac{\sum_{i=1}^n Hpvi}{n} \quad (\text{Eq. 14})$$

Where:

30-day = 30-day average.

$Hpvi$ = is the hourly parameter value for hour i

n = is the number of valid hourly parameter values collected over the previous 30 operating days.

(E) Use EPA Method 5 of appendix A to part 60 of this chapter to determine PM emissions. For each performance test, conduct three separate runs under the conditions that exist when the affected source is operating at the highest load or capacity level reasonably expected to occur. Conduct each test run to collect a minimum sample volume specified in Table 1 or 2 or Tables 11 through 15 to this subpart, as applicable, for determining compliance with a new source limit or an existing source limit. Calculate the average of the results from three runs to determine compliance. You need not determine the PM collected in the impingers ("back half") of the Method 5 particulate sampling train to demonstrate compliance with the PM standards in this subpart. This shall not preclude the permitting authority from requiring a determination of the "back half" for other purposes.

(F) For PM performance test reports used to set a PM CPMS operating limit, the electronic submission of the test report must also include the make and model of the PM CPMS instrument, serial number of the instrument, analytical principle of the instrument (*e.g.* beta attenuation), span of the instruments primary analytical range, milliamp value equivalent to the instrument zero output, technique by which this zero value was determined, and the average milliamp signals corresponding to each PM compliance test run.

(iii) For a particulate wet scrubber, you must establish the minimum pressure drop and liquid flow rate as defined in § 63.7575, as your operating limits during the three-run performance test during which you demonstrate compliance with your applicable limit. If you use a wet scrubber and you conduct separate performance tests for PM and TSM emissions, you must establish one set of minimum scrubber liquid flow rate and pressure drop operating limits. If you conduct multiple performance tests, you must set the minimum liquid flow rate and pressure drop operating limits at the higher of the minimum values established during the performance tests.

(iv) For an electrostatic precipitator (ESP) operated with a wet scrubber, you must establish the minimum total secondary electric power input, as defined in § 63.7575, as your operating limit during the three-run performance test during which you demonstrate compliance with your applicable limit. (These operating limits do not apply to ESP that are operated as dry controls without a wet scrubber.)

(v) For a dry scrubber, you must establish the minimum sorbent injection rate for each sorbent, as defined in § 63.7575, as your operating limit during the three-run performance test during which you demonstrate compliance with your applicable limit.

(vi) For activated carbon injection, you must establish the minimum activated carbon injection rate, as defined in § 63.7575, as your operating limit during the three-run performance test during which you demonstrate compliance with your applicable limit.

(vii) The operating limit for boilers or process heaters with fabric filters that demonstrate continuous compliance through bag leak detection systems is that a bag leak detection system be installed according to the requirements in § 63.7525, and that each fabric filter must be operated such that the bag leak detection system alert is not activated more than 5 percent of the operating time during a 6-month period.

(viii) For a minimum oxygen level, if you conduct multiple performance tests, you must set the minimum oxygen level at the lower of the minimum values established during the performance tests.

(ix) The operating limit for boilers or process heaters that demonstrate continuous compliance with the HCl emission limit using a SO₂ CEMS is to install and operate the SO₂ according to the requirements in § 63.7525(m) establish a maximum SO₂ emission rate equal to the highest hourly average SO₂ measurement during the most recent three-run performance test for HCl.

(c) If you elect to demonstrate compliance with an applicable emission limit through fuel analysis, you must conduct fuel analyses according to § 63.7521 and follow the procedures in paragraphs (c)(1) through (5) of this section.

(1) If you burn more than one fuel type, you must determine the fuel mixture you could burn in your boiler or process heater that would result in the maximum emission rates of the pollutants that you elect to demonstrate compliance through fuel analysis.

(2) You must determine the 90th percentile confidence level fuel pollutant concentration of the composite samples analyzed for each fuel type using the one-sided t-statistic test described in Equation 15 of this section.

$$P90 = mean + (SD \times t) \quad (\text{Eq. 15})$$

Where:

P90 = 90th percentile confidence level pollutant concentration, in pounds per million Btu.

Mean = Arithmetic average of the fuel pollutant concentration in the fuel samples analyzed according to § 63.7521, in units of pounds per million Btu.

SD = Standard deviation of the mean of pollutant concentration in the fuel samples analyzed according to § 63.7521, in units of pounds per million Btu. SD is calculated as the sample standard deviation divided by the square root of the number of samples.

t = t distribution critical value for 90th percentile ($t_{0.1}$) probability for the appropriate degrees of freedom (number of samples minus one) as obtained from a t-Distribution Critical Value Table.

(3) To demonstrate compliance with the applicable emission limit for HCl, the HCl emission rate that you calculate for your boiler or process heater using Equation 16 of this section must not exceed the applicable emission limit for HCl.

$$HCl = \sum_{i=1}^n (Ci90 \times Qi \times 1.028) \quad (\text{Eq. 16})$$

Where:

HCl = HCl emission rate from the boiler or process heater in units of pounds per million Btu.

Ci90 = 90th percentile confidence level concentration of chlorine in fuel type, i, in units of pounds per million Btu as calculated according to Equation 15 of this section.

Qi = Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest content of chlorine. If you do not burn multiple fuel types, it is not necessary to determine the value of this term. Insert a value of "1" for Qi. For continuous compliance demonstration, the actual fraction of the fuel burned during the month should be used.

n = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest content of chlorine.

1.028 = Molecular weight ratio of HCl to chlorine.

(4) To demonstrate compliance with the applicable emission limit for mercury, the mercury emission rate that you calculate for your boiler or process heater using Equation 17 of this section must not exceed the applicable emission limit for mercury.

$$Mercury = \sum_{i=1}^n (Hgi90 \times Qi) \quad (\text{Eq. 17})$$

Where:

Mercury = Mercury emission rate from the boiler or process heater in units of pounds per million Btu.

Hgi90 = 90th percentile confidence level concentration of mercury in fuel, i, in units of pounds per million Btu as calculated according to Equation 15 of this section.

Qi = Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest mercury content. If you do not burn multiple fuel types, it is not necessary to determine the value of this term. Insert a value of "1" for Qi. For continuous compliance demonstration, the actual fraction of the fuel burned during the month should be used.

n = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest mercury content.

(5) To demonstrate compliance with the applicable emission limit for TSM for solid or liquid fuels, the TSM emission rate that you calculate for your boiler or process heater from solid fuels using Equation 18 of this section must not exceed the applicable emission limit for TSM.

$$Metals = \sum_{i=1}^n (TSM90i \times Qi) \quad (\text{Eq. 18})$$

Where:

Metals = TSM emission rate from the boiler or process heater in units of pounds per million Btu.

TSMi90 = 90th percentile confidence level concentration of TSM in fuel, i, in units of pounds per million Btu as calculated according to Equation 15 of this section.

Qi = Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest TSM content. If you do not burn multiple fuel types, it is not necessary to determine the value of this term. Insert a value of "1" for Qi. For continuous compliance demonstration, the actual fraction of the fuel burned during the month should be used.

n = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest TSM content.

(d) [Reserved]

(e) You must include with the Notification of Compliance Status a signed certification that either the energy assessment was completed according to Table 3 to this subpart, and that the assessment is an accurate depiction of your facility at the time of the assessment, or that the maximum number of on-site technical hours specified in the definition of energy assessment applicable to the facility has been expended.

(f) You must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in § 63.7545(e).

(g) If you elect to demonstrate that a gaseous fuel meets the specifications of another gas 1 fuel as defined in § 63.7575, you must conduct an initial fuel specification analyses according to § 63.7521(f) through (i) and according to the frequency listed in § 63.7540(c) and maintain records of the results of the testing as outlined in § 63.7555(g). For samples where the initial mercury specification has not been exceeded, you will include a signed certification with the Notification of Compliance Status that the initial fuel specification test meets the gas specification outlined in the definition of other gas 1 fuels.

- (h) If you own or operate a unit subject to emission limits in Table 1 or 2 or Tables 11 through 15 to this subpart, you must meet the work practice standard according to Table 3 to this subpart. During startup and shutdown, you must only follow the work practice standards according to items 5 and 6 of Table 3 to this subpart.
- (i) If you opt to comply with the alternative SO₂ CEMS operating limit in Tables 4 and 8 to this subpart, you may do so only if your affected boiler or process heater:
- (1) Has a system using wet scrubber or dry sorbent injection and SO₂ CEMS installed on the unit; and
 - (2) At all times, you operate the wet scrubber or dry sorbent injection for acid gas control on the unit consistent with § 63.7500(a)(3); and
 - (3) You establish a unit-specific maximum SO₂ operating limit by collecting the maximum hourly SO₂ emission rate on the SO₂ CEMS during the paired 3-run test for HCl. The maximum SO₂ operating limit is equal to the highest hourly average SO₂ concentration measured during the HCl performance test.

§ 63.7533 Can I use efficiency credits earned from implementation of energy conservation measures to comply with this subpart?

- (a) If you elect to comply with the alternative equivalent output-based emission limits, instead of the heat input-based limits listed in Table 2 or 15 to this subpart, and you want to take credit for implementing energy conservation measures identified in an energy assessment, you may demonstrate compliance using efficiency credits according to the procedures in this section. You may use this compliance approach for an existing affected boiler for demonstrating initial compliance according to § 63.7522(e) and for demonstrating monthly compliance according to § 63.7522(f). Owners or operators using this compliance approach must establish an emissions benchmark, calculate and document the efficiency credits, develop an Implementation Plan, comply with the general reporting requirements, and apply the efficiency credit according to the procedures in paragraphs (b) through (f) of this section. You cannot use this compliance approach for a new or reconstructed affected boiler. Additional guidance from the Department of Energy on efficiency credits is available at <https://www.epa.gov/ttn/atw/boiler/boilerpg.html>.
- (b) For each existing affected boiler for which you intend to apply emissions credits, establish a benchmark from which emission reduction credits may be generated by determining the actual annual fuel heat input to the affected boiler before initiation of an energy conservation activity to reduce energy demand (*i.e.*, fuel usage) according to paragraphs (b)(1) through (4) of this section. The benchmark shall be expressed in trillion Btu per year heat input.
- (1) The benchmark from which efficiency credits may be generated shall be determined by using the most representative, accurate, and reliable process available for the source. The benchmark shall be established for a one-year period before the date that an energy demand reduction occurs, unless it can be demonstrated that a different time period is more representative of historical operations.
 - (2) Determine the starting point from which to measure progress. Inventory all fuel purchased and generated on-site (off-gases, residues) in physical units (MMBtu, million cubic feet, etc.).
 - (3) Document all uses of energy from the affected boiler. Use the most recent data available.

(4) Collect non-energy related facility and operational data to normalize, if necessary, the benchmark to current operations, such as building size, operating hours, etc. If possible, use actual data that are current and timely rather than estimated data.

(c) Efficiency credits can be generated if the energy conservation measures were implemented after January 1, 2008 and if sufficient information is available to determine the appropriate value of credits.

(1) The following emission points cannot be used to generate efficiency credits:

(i) Energy conservation measures implemented on or before January 1, 2008, unless the level of energy demand reduction is increased after January 1, 2008, in which case credit will be allowed only for change in demand reduction achieved after January 1, 2008.

(ii) Efficiency credits on shut-down boilers. Boilers that are shut down cannot be used to generate credits unless the facility provides documentation linking the permanent shutdown to energy conservation measures identified in the energy assessment. In this case, the benchmark established for the affected boiler to which the credits from the shutdown will be applied must be revised to include the benchmark established for the shutdown boiler.

(2) For all points included in calculating emissions credits, the owner or operator shall:

(i) Calculate annual credits for all energy demand points. Use Equation 19 to calculate credits. Energy conservation measures that meet the criteria of paragraph (c)(1) of this section shall not be included, except as specified in paragraph (c)(1)(i) of this section.

(3) Credits are generated by the difference between the benchmark that is established for each affected boiler, and the actual energy demand reductions from energy conservation measures implemented after January 1, 2008. Credits shall be calculated using Equation 19 of this section as follows:

(i) The overall equation for calculating credits is:

$$ECredits = \left(\sum_{i=1}^n EIS_{iactual} \right) \div EI_{baseline} \quad (Eq. 19)$$

Where:

ECredits = Energy Input Savings for all energy conservation measures implemented for an affected boiler, expressed as a decimal fraction of the baseline energy input.

EIS_{iactual} = Energy Input Savings for each energy conservation measure, i, implemented for an affected boiler, million Btu per year.

EI_{baseline} = Energy Input baseline for the affected boiler, million Btu per year.

n = Number of energy conservation measures included in the efficiency credit for the affected boiler.

(ii) [Reserved]

(d) The owner or operator shall develop, and submit for approval upon request by the Administrator, an Implementation Plan containing all of the information required in this paragraph for all boilers to be

included in an efficiency credit approach. The Implementation Plan shall identify all existing affected boilers to be included in applying the efficiency credits. The Implementation Plan shall include a description of the energy conservation measures implemented and the energy savings generated from each measure and an explanation of the criteria used for determining that savings. If requested, you must submit the implementation plan for efficiency credits to the Administrator for review and approval no later than 180 days before the date on which the facility intends to demonstrate compliance using the efficiency credit approach.

(e) The emissions rate as calculated using Equation 20 in paragraph (f) of this section from each existing boiler participating in the efficiency credit option must be in compliance with the limits in Table 2 or 15 to this subpart at all times the affected unit is subject to numeric emission limits, following the compliance date specified in § 63.7495.

(f) You must use Equation 20 of this paragraph (f) to demonstrate initial compliance by demonstrating that the emissions from the affected boiler participating in the efficiency credit compliance approach do not exceed the emission limits in Table 2 or 15 to this subpart.

Equation 20 to paragraph (f)

$$E_{adj} = E_m \times (1 - ECredits) \quad (Eq. 20)$$

Where:

E_{adj} = Emission level adjusted by applying the efficiency credits earned, lb per million Btu steam output (or lb per MWh) for the affected boiler.

E_m = Emissions measured during the performance test, lb per million Btu steam output (or lb per MWh) for the affected boiler.

ECredits = Efficiency credits from Equation 19 to paragraph (c)(3)(i) of this section for the affected boiler.

(g) As part of each compliance report submitted as required under § 63.7550, you must include documentation that the energy conservation measures implemented continue to generate the credit for use in demonstrating compliance with the emission limits.

Continuous Compliance Requirements

§ 63.7535 Is there a minimum amount of monitoring data I must obtain?

(a) You must monitor and collect data according to this section and the site-specific monitoring plan required by § 63.7505(d).

(b) You must operate the monitoring system and collect data at all required intervals at all times that each boiler or process heater is operating and compliance is required, except for periods of monitoring system malfunctions or out of control periods (see § 63.8(c)(7) of this part), and required monitoring system quality assurance or control activities, including, as applicable, calibration checks, required zero and span adjustments, and scheduled CMS maintenance as defined in your site-specific monitoring plan. A monitoring system malfunction is any sudden, infrequent, not reasonably preventable failure of the

monitoring system to provide valid data. Monitoring system failures that are caused in part by poor maintenance or careless operation are not malfunctions. You are required to complete monitoring system repairs in response to monitoring system malfunctions or out-of-control periods and to return the monitoring system to operation as expeditiously as practicable.

(c) You may not use data recorded during periods of startup and shutdown, monitoring system malfunctions or out-of-control periods, repairs associated with monitoring system malfunctions or out-of-control periods, or required monitoring system quality assurance or control activities in data averages and calculations used to report emissions or operating levels. You must record and make available upon request results of CMS performance audits and dates and duration of periods when the CMS is out of control to completion of the corrective actions necessary to return the CMS to operation consistent with your site-specific monitoring plan. You must use all the data collected during all other periods in assessing compliance and the operation of the control device and associated control system.

(d) Except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities (including, as applicable, system accuracy audits, calibration checks, and required zero and span adjustments), failure to collect required data is a deviation of the monitoring requirements. In calculating monitoring results, do not use any data collected during periods of startup and shutdown, when the monitoring system is out of control as specified in your site-specific monitoring plan, while conducting repairs associated with periods when the monitoring system is out of control, or while conducting required monitoring system quality assurance or quality control activities. You must calculate monitoring results using all other monitoring data collected while the process is operating. You must report all periods when the monitoring system is out of control in your semi-annual report.

§ 63.7540 How do I demonstrate continuous compliance with the emission limitations, fuel specifications and work practice standards?

(a) You must demonstrate continuous compliance with each emission limit in Tables 1 and 2 or 11 through 15 to this subpart, the work practice standards in Table 3 to this subpart, and the operating limits in Table 4 to this subpart that applies to you according to the methods specified in Table 8 to this subpart and paragraphs (a)(1) through (19) of this section.

(1) Following the date on which the initial compliance demonstration is completed or is required to be completed under §§ 63.7 and 63.7510, whichever date comes first, operation above the established maximum or below the established minimum operating limits shall constitute a deviation of established operating limits listed in Table 4 of this subpart except during performance tests conducted to determine compliance with the emission limits or to establish new operating limits. Operating limits must be confirmed or reestablished during performance tests.

(2) As specified in § 63.7555(d), you must keep records of the type and amount of all fuels burned in each boiler or process heater during the reporting period to demonstrate that all fuel types and mixtures of fuels burned would result in either of the following:

(i) Equal to or lower emissions of HCl, mercury, and TSM than the applicable emission limit for each pollutant, if you demonstrate compliance through fuel analysis.

(ii) Equal to or lower fuel input of chlorine, mercury, and TSM than the maximum values calculated during the last performance test, if you demonstrate compliance through performance testing.

(3) If you demonstrate compliance with an applicable HCl emission limit through fuel analysis for a solid or liquid fuel and you plan to burn a new type of solid or liquid fuel, you must recalculate the HCl emission rate using Equation 16 of § 63.7530 according to paragraphs (a)(3)(i) through (iii) of this section. You are not required to conduct fuel analyses for the fuels described in § 63.7510(a)(2)(i) through (iii). You may exclude the fuels described in § 63.7510(a)(2)(i) through (iii) when recalculating the HCl emission rate.

- (i) You must determine the chlorine concentration for any new fuel type in units of pounds per million Btu, based on supplier data or your own fuel analysis, according to the provisions in your site-specific fuel analysis plan developed according to § 63.7521(b).
- (ii) You must determine the new mixture of fuels that will have the highest content of chlorine.
- (iii) Recalculate the HCl emission rate from your boiler or process heater under these new conditions using Equation 16 of § 63.7530. The recalculated HCl emission rate must be less than the applicable emission limit.

(4) If you demonstrate compliance with an applicable HCl emission limit through performance testing and you plan to burn a new type of fuel or a new mixture of fuels, you must recalculate the maximum chlorine input using Equation 7 of § 63.7530. If the results of recalculating the maximum chlorine input using Equation 7 of § 63.7530 are greater than the maximum chlorine input level established during the previous performance test, then you must conduct a new performance test within 60 days of burning the new fuel type or fuel mixture according to the procedures in § 63.7520 to demonstrate that the HCl emissions do not exceed the emission limit. You must also establish new operating limits based on this performance test according to the procedures in § 63.7530(b). In recalculating the maximum chlorine input and establishing the new operating limits, you are not required to conduct fuel analyses for and include the fuels described in § 63.7510(a)(2)(i) through (iii).

(5) If you demonstrate compliance with an applicable mercury emission limit through fuel analysis, and you plan to burn a new type of fuel, you must recalculate the mercury emission rate using Equation 17 of § 63.7530 according to the procedures specified in paragraphs (a)(5)(i) through (iii) of this section. You are not required to conduct fuel analyses for the fuels described in § 63.7510(a)(2)(i) through (iii). You may exclude the fuels described in § 63.7510(a)(2)(i) through (iii) when recalculating the mercury emission rate.

- (i) You must determine the mercury concentration for any new fuel type in units of pounds per million Btu, based on supplier data or your own fuel analysis, according to the provisions in your site-specific fuel analysis plan developed according to § 63.7521(b).
- (ii) You must determine the new mixture of fuels that will have the highest content of mercury.
- (iii) Recalculate the mercury emission rate from your boiler or process heater under these new conditions using Equation 17 of § 63.7530. The recalculated mercury emission rate must be less than the applicable emission limit.

(6) If you demonstrate compliance with an applicable mercury emission limit through performance testing, and you plan to burn a new type of fuel or a new mixture of fuels, you must recalculate the maximum mercury input using Equation 8 of § 63.7530. If the results of recalculating the maximum mercury input using Equation 8 of § 63.7530 are higher than the maximum mercury input level established during the previous performance test, then you must conduct a new performance test within 60 days of burning the new fuel type or fuel mixture according to the procedures in § 63.7520 to demonstrate that the mercury emissions do not exceed the emission limit. You must also establish new operating limits based on this performance test according to the procedures in § 63.7530(b). You are not required to conduct fuel analyses for the fuels described in § 63.7510(a)(2)(i) through (iii). You may exclude the fuels described in § 63.7510(a)(2)(i) through (iii) when recalculating the mercury emission rate.

(7) If your unit is controlled with a fabric filter, and you demonstrate continuous compliance using a bag leak detection system, you must initiate corrective action within 1 hour of a bag leak detection system alert and complete corrective actions as soon as practical, and operate and maintain the fabric filter system such that the periods which would cause an alert are no more than 5 percent of the operating time during a 6-month period. You must also keep records of the date, time, and duration of each alert, the time corrective action was initiated and completed, and a brief description of the cause of the alert and the corrective action taken. You must also record the percent of the operating time during each 6-month period that the conditions exist for an alert. In calculating this operating time percentage, if inspection of the fabric filter demonstrates that no corrective action is required, no alert time is counted. If corrective action is required, each alert shall be counted as a minimum of 1 hour. If you take longer than 1 hour to initiate corrective action, the alert time shall be counted as the actual amount of time taken to initiate corrective action.

(8) To demonstrate compliance with the applicable alternative CO CEMS emission limit listed in Table 1 or 2 or Tables 11 through 15 to this subpart, you must meet the requirements in paragraphs (a)(8)(i) through (iv) of this section.

(i) Continuously monitor CO according to §§ 63.7525(a) and 63.7535.

(ii) Maintain a CO emission level below or at your applicable alternative CO CEMS-based standard in Table 1 or 2 or Tables 11 through 15 to this subpart at all times the affected unit is subject to numeric emission limits.

(iii) Keep records of CO levels according to § 63.7555(b).

(iv) You must record and make available upon request results of CO CEMS performance audits, dates and duration of periods when the CO CEMS is out of control to completion of the corrective actions necessary to return the CO CEMS to operation consistent with your site-specific monitoring plan.

(9) The owner or operator of a boiler or process heater using a PM CPMS or a PM CEMS to meet requirements of this subpart shall install, certify (PM CEMS only), operate, and maintain the PM CPMS or PM CEMS in accordance with your site-specific monitoring plan as required in § 63.7505(d).

(10) If your boiler or process heater has a heat input capacity of 10 million Btu per hour or greater, you must conduct an annual tune-up of the boiler or process heater to demonstrate continuous compliance as specified in paragraphs (a)(10)(i) through (vi) of this section. You must conduct the tune-

up while burning the type of fuel (or fuels in case of units that routinely burn a mixture) that provided the majority of the heat input to the boiler or process heater over the 12 months prior to the tune-up. This frequency does not apply to limited-use boilers and process heaters, as defined in § 63.7575, or units with continuous oxygen trim systems that maintain an optimum air to fuel ratio.

- (i) As applicable, inspect the burner, and clean or replace any components of the burner as necessary (you may perform the burner inspection any time prior to the tune-up or delay the burner inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the burner inspection until the first outage, not to exceed 36 months from the previous inspection. At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment;
- (ii) Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available;
- (iii) Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (you may delay the inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the inspection until the first outage, not to exceed 36 months from the previous inspection;
- (iv) Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO_x requirement to which the unit is subject;
- (v) Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer; and
- (vi) Maintain on-site and submit, if requested by the Administrator, a report containing the information in paragraphs (a)(10)(vi)(A) through (C) of this section,
 - (A) The concentrations of CO in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater;
 - (B) A description of any corrective actions taken as a part of the tune-up; and
 - (C) The type and amount of fuel used over the 12 months prior to the tune-up, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel used by each unit.

(11) If your boiler or process heater has a heat input capacity of less than 10 million Btu per hour (except as specified in paragraph (a)(12) of this section), you must conduct a biennial tune-up of the boiler or process heater as specified in paragraphs (a)(10)(i) through (vi) of this section to demonstrate continuous compliance.

(12) If your boiler or process heater has a continuous oxygen trim system that maintains an optimum air to fuel ratio, or a heat input capacity of less than or equal to 5 million Btu per hour and the unit is in the units designed to burn gas 1; units designed to burn gas 2 (other); or units designed to burn light liquid subcategories, or meets the definition of limited-use boiler or process heater in § 63.7575, you must conduct a tune-up of the boiler or process heater every 5 years as specified in paragraphs (a)(10)(i) through (vi) of this section to demonstrate continuous compliance. You may delay the burner inspection specified in paragraph (a)(10)(i) of this section until the next scheduled or unscheduled unit shutdown, but you must inspect each burner at least once every 72 months. If an oxygen trim system is utilized on a unit without emission standards to reduce the tune-up frequency to once every 5 years, set the oxygen level no lower than the oxygen concentration measured during the most recent tune-up.

(13) If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup.

(14) If you are using a CEMS measuring mercury emissions to meet requirements of this subpart you must install, certify, operate, and maintain the mercury CEMS as specified in paragraphs (a)(14)(i) and (ii) of this section.

(i) Operate the mercury CEMS in accordance with performance specification 12A of 40 CFR part 60, appendix B or operate a sorbent trap based integrated monitor in accordance with performance specification 12B of 40 CFR part 60, appendix B. The duration of the performance test must be 30 operating days if you specified a 30 operating day basis in § 63.7545(e)(2)(iii) for mercury CEMS or it must be 720 hours if you specified a 720 hour basis in § 63.7545(e)(2)(iii) for mercury CEMS. For each day in which the unit operates, you must obtain hourly mercury concentration data, and stack gas volumetric flow rate data.

(ii) If you are using a mercury CEMS, you must install, operate, calibrate, and maintain an instrument for continuously measuring and recording the mercury mass emissions rate to the atmosphere according to the requirements of performance specifications 6 and 12A of 40 CFR part 60, appendix B, and quality assurance procedure 6 of 40 CFR part 60, appendix F.

(15) If you are using a CEMS to measure HCl emissions to meet requirements of this subpart, you must install, certify, operate, and maintain the HCl CEMS as specified in paragraphs (a)(15)(i) and (ii) of this section. This option for an affected unit takes effect on the date of approval of a site-specific monitoring plan.

(i) Operate the continuous emissions monitoring system in accordance with the applicable performance specification in 40 CFR part 60, appendix B. The duration of the performance test must be 30 operating days if you specified a 30 operating day basis in § 63.7545(e)(2)(iii) for HCl CEMS or it must be 720 hours if you specified a 720 hour basis in § 63.7545(e)(2)(iii) for HCl CEMS. For each day in which the unit operates, you must obtain hourly HCl concentration data, and stack gas volumetric flow rate data.

(ii) If you are using a HCl CEMS, you must install, operate, calibrate, and maintain an instrument for continuously measuring and recording the HCl mass emissions rate to the atmosphere according to the requirements of the applicable performance specification of 40 CFR part 60, appendix B, and the quality assurance procedures of 40 CFR part 60, appendix F.

(16) If you demonstrate compliance with an applicable TSM emission limit through performance testing, and you plan to burn a new type of fuel or a new mixture of fuels, you must recalculate the maximum TSM input using Equation 9 of § 63.7530. If the results of recalculating the maximum TSM input using Equation 9 of § 63.7530 are higher than the maximum total selected input level established during the previous performance test, then you must conduct a new performance test within 60 days of burning the new fuel type or fuel mixture according to the procedures in § 63.7520 to demonstrate that the TSM emissions do not exceed the emission limit. You must also establish new operating limits based on this performance test according to the procedures in § 63.7530(b). You are not required to conduct fuel analyses for the fuels described in § 63.7510(a)(2)(i) through (iii). You may exclude the fuels described in § 63.7510(a)(2)(i) through (iii) when recalculating the TSM emission rate.

(17) If you demonstrate compliance with an applicable TSM emission limit through fuel analysis for solid or liquid fuels, and you plan to burn a new type of fuel, you must recalculate the TSM emission rate using Equation 18 of § 63.7530 according to the procedures specified in paragraphs (a)(5)(i) through (iii) of this section. You are not required to conduct fuel analyses for the fuels described in § 63.7510(a)(2)(i) through (iii). You may exclude the fuels described in § 63.7510(a)(2)(i) through (iii) when recalculating the TSM emission rate.

- (i) You must determine the TSM concentration for any new fuel type in units of pounds per million Btu, based on supplier data or your own fuel analysis, according to the provisions in your site-specific fuel analysis plan developed according to § 63.7521(b).
- (ii) You must determine the new mixture of fuels that will have the highest content of TSM.
- (iii) Recalculate the TSM emission rate from your boiler or process heater under these new conditions using Equation 18 of § 63.7530. The recalculated TSM emission rate must be less than the applicable emission limit.

(18) If you demonstrate continuous PM emissions compliance with a PM CPMS you will use a PM CPMS to establish a site-specific operating limit corresponding to the results of the performance test demonstrating compliance with the PM limit. You will conduct your performance test using the test method criteria in Table 5 of this subpart. You will use the PM CPMS to demonstrate continuous compliance with this operating limit. You must repeat the performance test annually and reassess and adjust the site-specific operating limit in accordance with the results of the performance test.

- (i) To determine continuous compliance, you must record the PM CPMS output data for all periods when the process is operating and the PM CPMS is not out-of-control. You must demonstrate continuous compliance by using all quality-assured hourly average data collected by the PM CPMS for all operating hours to calculate the arithmetic average operating parameter in units of the operating limit (milliamps) on a 30-day rolling average basis.
- (ii) For any deviation of the 30-day rolling PM CPMS average value from the established operating parameter limit, you must:

- (A) Within 48 hours of the deviation, visually inspect the air pollution control device (APCD);
- (B) If inspection of the APCD identifies the cause of the deviation, take corrective action as soon as possible and return the PM CPMS measurement to within the established value; and

(C) Within 30 days of the deviation or at the time of the annual compliance test, whichever comes first, conduct a PM emissions compliance test to determine compliance with the PM emissions limit and to verify or re-establish the CPMS operating limit. You are not required to conduct additional testing for any deviations that occur between the time of the original deviation and the PM emissions compliance test required under this paragraph.

(iii) PM CPMS deviations from the operating limit leading to more than four required performance tests in a 12-month operating period constitute a separate violation of this subpart.

(19) If you choose to comply with the PM filterable emissions limit by using PM CEMS you must install, certify, operate, and maintain a PM CEMS and record the output of the PM CEMS as specified in paragraphs (a)(19)(i) through (vii) of this section. The compliance limit will be expressed as a 30-day rolling average of the numerical emissions limit value applicable for your unit in Table 1 or 2 or Tables 11 through 15 to this subpart.

(i) Install and certify your PM CEMS according to the procedures and requirements in Performance Specification 11 - Specifications and Test Procedures for Particulate Matter Continuous Emission Monitoring Systems at Stationary Sources in Appendix B to part 60 of this chapter, using test criteria outlined in Table V of this rule. The reportable measurement output from the PM CEMS must be expressed in units of the applicable emissions limit (e.g., lb/MMBtu, lb/MWh).

(ii) Operate and maintain your PM CEMS according to the procedures and requirements in Procedure 2 - Quality Assurance Requirements for Particulate Matter Continuous Emission Monitoring Systems at Stationary Sources in Appendix F to part 60 of this chapter.

(A) You must conduct the relative response audit (RRA) for your PM CEMS at least once annually.

(B) You must conduct the relative correlation audit (RCA) for your PM CEMS at least once every 3 years.

(iii) Collect PM CEMS hourly average output data for all boiler operating hours except as indicated in paragraph (v) of this section.

(iv) Calculate the arithmetic 30-day rolling average of all of the hourly average PM CEMS output data collected during all nonexempt boiler or process heater operating hours.

(v) You must collect data using the PM CEMS at all times the unit is operating and at the intervals specified this paragraph (a), except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities.

(vi) You must use all the data collected during all boiler or process heater operating hours in assessing the compliance with your operating limit except:

(A) Any data collected during monitoring system malfunctions, repairs associated with monitoring system malfunctions, or required monitoring system quality assurance or control activities conducted during monitoring system malfunctions in calculations and report any such periods in your annual deviation report;

(B) Any data collected during periods when the monitoring system is out of control as specified in your site-specific monitoring plan, repairs associated with periods when the monitoring system is out of control, or

required monitoring system quality assurance or control activities conducted during out of control periods in calculations used to report emissions or operating levels and report any such periods in your annual deviation report;

(C) Any data recorded during periods of startup or shutdown.

(vii) You must record and make available upon request results of PM CEMS system performance audits, dates and duration of periods when the PM CEMS is out of control to completion of the corrective actions necessary to return the PM CEMS to operation consistent with your site-specific monitoring plan.

(b) You must report each instance in which you did not meet each emission limit and operating limit in Tables 1 through 4 or 11 through 15 to this subpart that apply to you. These instances are deviations from the emission limits or operating limits, respectively, in this subpart. These deviations must be reported according to the requirements in § 63.7550.

(c) If you elected to demonstrate that the unit meets the specification for mercury for the unit designed to burn gas 1 subcategory, you must follow the sampling frequency specified in paragraphs (c)(1) through (4) of this section and conduct this sampling according to the procedures in § 63.7521(f) through (i).

(1) If the initial mercury constituents in the gaseous fuels are measured to be equal to or less than half of the mercury specification as defined in § 63.7575, you do not need to conduct further sampling.

(2) If the initial mercury constituents are greater than half but equal to or less than 75 percent of the mercury specification as defined in § 63.7575, you will conduct semi-annual sampling. If 6 consecutive semi-annual fuel analyses demonstrate 50 percent or less of the mercury specification, you do not need to conduct further sampling. If any semi-annual sample exceeds 75 percent of the mercury specification, you must return to monthly sampling for that fuel, until 12 months of fuel analyses again are less than 75 percent of the compliance level.

(3) If the initial mercury constituents are greater than 75 percent of the mercury specification as defined in § 63.7575, you will conduct monthly sampling. If 12 consecutive monthly fuel analyses demonstrate 75 percent or less of the mercury specification, you may decrease the fuel analysis frequency to semi-annual for that fuel.

(4) If the initial sample exceeds the mercury specification as defined in § 63.7575, each affected boiler or process heater combusting this fuel is not part of the unit designed to burn gas 1 subcategory and must be in compliance with the emission and operating limits for the appropriate subcategory. You may elect to conduct additional monthly sampling while complying with these emissions and operating limits to demonstrate that the fuel qualifies as another gas 1 fuel. If 12 consecutive monthly fuel analyses samples are at or below the mercury specification as defined in § 63.7575, each affected boiler or process heater combusting the fuel can elect to switch back into the unit designed to burn gas 1 subcategory until the mercury specification is exceeded.

(d) For startup and shutdown, you must meet the work practice standards according to items 5 and 6 of Table 3 of this subpart.

§ 63.7541 How do I demonstrate continuous compliance under the emissions averaging provision?

(a) Following the compliance date, the owner or operator must demonstrate compliance with this subpart on a continuous basis by meeting the requirements of paragraphs (a)(1) through (5) of this section.

(1) For each calendar month, demonstrate compliance with the average weighted emissions limit for the existing units participating in the emissions averaging option as determined in § 63.7522(f) and (g).

(2) You must maintain the applicable opacity limit according to paragraphs (a)(2)(i) and (ii) of this section.

(i) For each existing unit participating in the emissions averaging option that is equipped with a dry control system and not vented to a common stack, maintain opacity at or below the applicable limit.

(ii) For each group of units participating in the emissions averaging option where each unit in the group is equipped with a dry control system and vented to a common stack that does not receive emissions from non-affected units, maintain opacity at or below the applicable limit at the common stack.

(3) For each existing unit participating in the emissions averaging option that is equipped with a wet scrubber, maintain the 30-day rolling average parameter values at or above the operating limits established during the most recent performance test.

(4) For each existing unit participating in the emissions averaging option that has an approved alternative operating parameter, maintain the 30-day rolling average parameter values consistent with the approved monitoring plan.

(5) For each existing unit participating in the emissions averaging option venting to a common stack configuration containing affected units from other subcategories, maintain the appropriate operating limit for each unit as specified in Table 4 to this subpart that applies.

(b) Any instance where the owner or operator fails to comply with the continuous monitoring requirements in paragraphs (a)(1) through (5) of this section is a deviation.

Notification, Reports, and Records

§ 63.7545 What notifications must I submit and when?

(a) You must submit to the Administrator all of the notifications in §§ 63.7(b) and (c), 63.8(e), (f)(4) and (6), and 63.9(b) through (h) that apply to you by the dates specified.

(b) As specified in § 63.9(b)(2), if you startup your affected source before January 31, 2013, you must submit an Initial Notification not later than 120 days after January 31, 2013, or no later than 120 days after the source becomes subject to this subpart, whichever is later.

(c) As specified in § 63.9(b)(4) and (5), if you startup your new or reconstructed affected source on or after January 31, 2013, you must submit an Initial Notification not later than 15 days after the actual date of startup of the affected source. For a new or reconstructed affected source that has reclassified to major source status, you must submit an Initial Notification not later 120 days after the source becomes subject to this subpart.

(d) If you are required to conduct a performance test you must submit a Notification of Intent to conduct a performance test at least 60 days before the performance test is scheduled to begin.

(e) If you are required to conduct an initial compliance demonstration as specified in § 63.7530, you must submit a Notification of Compliance Status according to § 63.9(h)(2)(ii). For the initial compliance demonstration for each boiler or process heater, you must submit the Notification of Compliance Status, including all performance test results and fuel analyses, before the close of business on the 60th day following the completion of all performance test and/or other initial compliance demonstrations for all boiler or process heaters at the facility according to § 63.10(d)(2). The Notification of Compliance Status report must contain all the information specified in paragraphs (e)(1) through (8) of this section, as applicable. If you are not required to conduct an initial compliance demonstration as specified in § 63.7530(a), the Notification of Compliance Status must only contain the information specified in paragraphs (e)(1) and (8) of this section and must be submitted within 60 days of the compliance date specified at § 63.7495(b).

(1) A description of the affected unit(s) including identification of which subcategories the unit is in, the design heat input capacity of the unit, a description of the add-on controls used on the unit to comply with this subpart, description of the fuel(s) burned, including whether the fuel(s) were a secondary material determined by you or the EPA through a petition process to be a non-waste under § 241.3 of this chapter, whether the fuel(s) were a secondary material processed from discarded non-hazardous secondary materials within the meaning of § 241.3 of this chapter, and justification for the selection of fuel(s) burned during the compliance demonstration.

(2) Summary of the results of all performance tests and fuel analyses, and calculations conducted to demonstrate initial compliance including all established operating limits, and including:

(i) Identification of whether you are complying with the PM emission limit or the alternative TSM emission limit.

(ii) Identification of whether you are complying with the output-based emission limits or the heat input-based (i.e., lb/MMBtu or ppm) emission limits,

(iii) Identification of whether you are complying the arithmetic mean of all valid hours of data from the previous 30 operating days or of the previous 720 hours. This identification shall be specified separately for each operating parameter.

(3) A summary of the maximum CO emission levels recorded during the performance test to show that you have met any applicable emission standard in Table 1 or 2 or Tables 11 through 15 to this subpart, if you are not using a CO CEMS to demonstrate compliance.

(4) Identification of whether you plan to demonstrate compliance with each applicable emission limit through performance testing, a CEMS, or fuel analysis.

(5) Identification of whether you plan to demonstrate compliance by emissions averaging and identification of whether you plan to demonstrate compliance by using efficiency credits through energy conservation:

(i) If you plan to demonstrate compliance by emission averaging, report the emission level that was being achieved or the control technology employed on January 31, 2013.

(ii) [Reserved]

(6) A signed certification that you have met all applicable emission limits and work practice standards.

(7) If you had a deviation from any emission limit, work practice standard, or operating limit, you must also submit a description of the deviation, the duration of the deviation, and the corrective action taken in the Notification of Compliance Status report.

(8) In addition to the information required in § 63.9(h)(2), your notification of compliance status must include the following certification(s) of compliance, as applicable, and signed by a responsible official:

(i) "This facility completed the required initial tune-up for all of the boilers and process heaters covered by 40 CFR part 63 subpart DDDDD at this site according to the procedures in § 63.7540(a)(10)(i) through (vi)."

(ii) "This facility has had an energy assessment performed according to § 63.7530(e)."

(iii) Except for units that burn only natural gas, refinery gas, or other gas 1 fuel, or units that qualify for a statutory exemption as provided in section 129(g)(1) of the Clean Air Act, include the following: "No secondary materials that are solid waste were combusted in any affected unit."

(f) If you operate a unit designed to burn natural gas, refinery gas, or other gas 1 fuels that is subject to this subpart, and you intend to use a fuel other than natural gas, refinery gas, gaseous fuel subject to another subpart of this part, part 60, 61, or 65, or other gas 1 fuel to fire the affected unit during a period of natural gas curtailment or supply interruption, as defined in § 63.7575, you must submit a notification of alternative fuel use within 48 hours of the declaration of each period of natural gas curtailment or supply interruption, as defined in § 63.7575. The notification must include the information specified in paragraphs (f)(1) through (5) of this section.

(1) Company name and address.

(2) Identification of the affected unit.

(3) Reason you are unable to use natural gas or equivalent fuel, including the date when the natural gas curtailment was declared or the natural gas supply interruption began.

(4) Type of alternative fuel that you intend to use.

(5) Dates when the alternative fuel use is expected to begin and end.

(g) If you intend to commence or recommence combustion of solid waste, you must provide 30 days prior notice of the date upon which you will commence or recommence combustion of solid waste. The notification must identify:

(1) The name of the owner or operator of the affected source, as defined in § 63.7490, the location of the source, the boiler(s) or process heater(s) that will commence burning solid waste, and the date of the notice.

(2) The currently applicable subcategories under this subpart.

(3) The date on which you became subject to the currently applicable emission limits.

(4) The date upon which you will commence combusting solid waste.

(h) If you have switched fuels or made a physical change to the boiler or process heater and the fuel switch or physical change resulted in the applicability of a different subcategory, you must provide notice

of the date upon which you switched fuels or made the physical change within 30 days of the switch/change. The notification must identify:

- (1) The name of the owner or operator of the affected source, as defined in § 63.7490, the location of the source, the boiler(s) and process heater(s) that have switched fuels, were physically changed, and the date of the notice.
- (2) The currently applicable subcategory under this subpart.
- (3) The date upon which the fuel switch or physical change occurred.

§ 63.7550 What reports must I submit and when?

- (a) You must submit each report in Table 9 to this subpart that applies to you.
- (b) Unless the EPA Administrator has approved a different schedule for submission of reports under § 63.10(a), you must submit each report, according to paragraph (h) of this section, by the date in Table 9 to this subpart and according to the requirements in paragraphs (b)(1) through (4) of this section. For units that are subject only to a requirement to conduct subsequent annual, biennial, or 5-year tune-up according to § 63.7540(a)(10), (11), or (12), respectively, and not subject to emission limits or Table 4 operating limits, you may submit only an annual, biennial, or 5-year compliance report, as applicable, as specified in paragraphs (b)(1) through (4) of this section, instead of a semi-annual compliance report.
 - (1) The first semi-annual compliance report must cover the period beginning on the compliance date that is specified for each boiler or process heater in § 63.7495 and ending on June 30 or December 31, whichever date is the first date that occurs at least 180 days after the compliance date that is specified for your source in § 63.7495. If submitting an annual, biennial, or 5-year compliance report, the first compliance report must cover the period beginning on the compliance date that is specified for each boiler or process heater in § 63.7495 and ending on December 31 within 1, 2, or 5 years, as applicable, after the compliance date that is specified for your source in § 63.7495.
 - (2) The first semi-annual compliance report must be postmarked or submitted no later than July 31 or January 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for each boiler or process heater in § 63.7495. The first annual, biennial, or 5-year compliance report must be postmarked or submitted no later than January 31.
 - (3) Each subsequent semi-annual compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31. Annual, biennial, and 5-year compliance reports must cover the applicable 1-, 2-, or 5-year periods from January 1 to December 31.
 - (4) Each subsequent semi-annual compliance report must be postmarked or submitted no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period. Annual, biennial, and 5-year compliance reports must be postmarked or submitted no later than January 31.
 - (5) For each affected source that is subject to permitting regulations pursuant to part 70 or part 71 of this chapter, and if the permitting authority has established dates for submitting semiannual reports pursuant to 70.6(a)(3)(iii)(A) or 71.6(a)(3)(iii)(A), you may submit the first and subsequent compliance

reports according to the dates the permitting authority has established in the permit instead of according to the dates in paragraphs (b)(1) through (4) of this section.

(c) A compliance report must contain the following information depending on how the facility chooses to comply with the limits set in this rule.

(1) If the facility is subject to the requirements of a tune up you must submit a compliance report with the information in paragraphs (c)(5)(i) through (iii) of this section, (xiv) and (xvii) of this section, and paragraph (c)(5)(iv) of this section for limited-use boiler or process heater.

(2) If you are complying with the fuel analysis you must submit a compliance report with the information in paragraphs (c)(5)(i) through (iii), (vi), (x), (xi), (xiii), (xv), (xvii), (xviii) and paragraph (d) of this section.

(3) If you are complying with the applicable emissions limit with performance testing you must submit a compliance report with the information in (c)(5)(i) through (iii), (vi), (vii), (viii), (ix), (xi), (xiii), (xv), (xvii), (xviii) and paragraph (d) of this section.

(4) If you are complying with an emissions limit using a CMS the compliance report must contain the information required in paragraphs (c)(5)(i) through (iii), (v), (vi), (xi) through (xiii), (xv) through (xviii), and paragraph (e) of this section.

(5) (i) Company and Facility name and address.

(ii) Process unit information, emissions limitations, and operating parameter limitations.

(iii) Date of report and beginning and ending dates of the reporting period.

(iv) The total operating time during the reporting period.

(v) If you use a CMS, including CEMS, COMS, or CPMS, you must include the monitoring equipment manufacturer(s) and model numbers and the date of the last CMS certification or audit.

(vi) The total fuel use by each individual boiler or process heater subject to an emission limit within the reporting period, including, but not limited to, a description of the fuel, whether the fuel has received a non-waste determination by the EPA or your basis for concluding that the fuel is not a waste, and the total fuel usage amount with units of measure.

(vii) If you are conducting performance tests once every 3 years consistent with § 63.7515(b) or (c), the date of the last 2 performance tests and a statement as to whether there have been any operational changes since the last performance test that could increase emissions.

(viii) A statement indicating that you burned no new types of fuel in an individual boiler or process heater subject to an emission limit. Or, if you did burn a new type of fuel and are subject to a HCl emission limit, you must submit the calculation of chlorine input, using Equation 7 of § 63.7530, that demonstrates that your source is still within its maximum chlorine input level established during the previous performance testing (for sources that demonstrate compliance through performance testing) or you must submit the calculation of HCl emission rate using Equation 16 of § 63.7530 that demonstrates that your source is still meeting the emission limit for HCl emissions (for boilers or process heaters that demonstrate compliance

through fuel analysis). If you burned a new type of fuel and are subject to a mercury emission limit, you must submit the calculation of mercury input, using Equation 8 of § 63.7530, that demonstrates that your source is still within its maximum mercury input level established during the previous performance testing (for sources that demonstrate compliance through performance testing), or you must submit the calculation of mercury emission rate using Equation 17 of § 63.7530 that demonstrates that your source is still meeting the emission limit for mercury emissions (for boilers or process heaters that demonstrate compliance through fuel analysis). If you burned a new type of fuel and are subject to a TSM emission limit, you must submit the calculation of TSM input, using Equation 9 of § 63.7530, that demonstrates that your source is still within its maximum TSM input level established during the previous performance testing (for sources that demonstrate compliance through performance testing), or you must submit the calculation of TSM emission rate, using Equation 18 of § 63.7530, that demonstrates that your source is still meeting the emission limit for TSM emissions (for boilers or process heaters that demonstrate compliance through fuel analysis).

(ix) If you wish to burn a new type of fuel in an individual boiler or process heater subject to an emission limit and you cannot demonstrate compliance with the maximum chlorine input operating limit using Equation 7 of § 63.7530 or the maximum mercury input operating limit using Equation 8 of § 63.7530, or the maximum TSM input operating limit using Equation 9 of § 63.7530 you must include in the compliance report a statement indicating the intent to conduct a new performance test within 60 days of starting to burn the new fuel.

(x) A summary of any monthly fuel analyses conducted to demonstrate compliance according to §§ 63.7521 and 63.7530 for individual boilers or process heaters subject to emission limits, and any fuel specification analyses conducted according to §§ 63.7521(f) and 63.7530(g).

(xi) If there are no deviations from any emission limits or operating limits in this subpart that apply to you, a statement that there were no deviations from the emission limits or operating limits during the reporting period.

(xii) If there were no deviations from the monitoring requirements including no periods during which the CMSs, including CEMS, COMS, and CPMS, were out of control as specified in § 63.8(c)(7), a statement that there were no deviations and no periods during which the CMS were out of control during the reporting period.

(xiii) If a malfunction occurred during the reporting period, the report must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by you during a malfunction of a boiler, process heater, or associated air pollution control device or CMS to minimize emissions in accordance with § 63.7500(a)(3), including actions taken to correct the malfunction.

(xiv) Include the date of the most recent tune-up for each unit subject to only the requirement to conduct an annual, biennial, or 5-year tune-up according to § 63.7540(a)(10), (11), or (12) respectively. Include the date of the most recent burner inspection if it was not done annually,

biennially, or on a 5-year period and was delayed until the next scheduled or unscheduled unit shutdown.

(xv) If you plan to demonstrate compliance by emission averaging, certify the emission level achieved or the control technology employed is no less stringent than the level or control technology contained in the notification of compliance status in § 63.7545(e)(5)(i).

(xvi) For each reporting period, the compliance reports must include all of the calculated 30 day rolling average values for CEMS (CO, HCl, SO₂, and mercury), 10 day rolling average values for CO CEMS when the limit is expressed as a 10 day instead of 30 day rolling average, and the PM CPMS data.

(xvii) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.

(xviii) For each instance of startup or shutdown include the information required to be monitored, collected, or recorded according to the requirements of § 63.7555(d).

(d) For each deviation from an emission limit or operating limit in this subpart that occurs at an individual boiler or process heater where you are not using a CMS to comply with that emission limit or operating limit, or from the work practice standards for periods of startup and shutdown, the compliance report must additionally contain the information required in paragraphs (d)(1) through (3) of this section.

(1) A description of the deviation and which emission limit, operating limit, or work practice standard from which you deviated.

(2) Information on the number, duration, and cause of deviations (including unknown cause), as applicable, and the corrective action taken.

(3) If the deviation occurred during an annual performance test, provide the date the annual performance test was completed.

(e) For each deviation from an emission limit, operating limit, and monitoring requirement in this subpart occurring at an individual boiler or process heater where you are using a CMS to comply with that emission limit or operating limit, the compliance report must additionally contain the information required in paragraphs (e)(1) through (9) of this section. This includes any deviations from your site-specific monitoring plan as required in § 63.7505(d).

(1) The date and time that each deviation started and stopped and description of the nature of the deviation (i.e., what you deviated from).

(2) The date and time that each CMS was inoperative, except for zero (low-level) and high-level checks.

(3) The date, time, and duration that each CMS was out of control, including the information in § 63.8(c)(8).

(4) The date and time that each deviation started and stopped.

(5) A summary of the total duration of the deviation during the reporting period and the total duration as a percent of the total source operating time during that reporting period.

(6) A characterization of the total duration of the deviations during the reporting period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes.

(7) A summary of the total duration of CMS's downtime during the reporting period and the total duration of CMS downtime as a percent of the total source operating time during that reporting period.

(8) A brief description of the source for which there was a deviation.

(9) A description of any changes in CMSs, processes, or controls since the last reporting period for the source for which there was a deviation.

(f)-(g) [Reserved]

(h) You must submit the reports according to the procedures specified in paragraphs (h)(1) through (3) of this section.

(1) Within 60 days after the date of completing each performance test (as defined in § 63.2) required by this subpart, you must submit the results of the performance tests, including any fuel analyses, following the procedure specified in either paragraph (h)(1)(i) or (ii) of this section.

(i) For data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT Web site (<http://www.epa.gov/ttn/chief/ert/index.html>), you must submit the results of the performance test to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI). (CEDRI can be accessed through the EPA's Central Data Exchange (CDX) (<https://cdx.epa.gov/>).) Performance test data must be submitted in a file format generated through use of the EPA's ERT or an electronic file format consistent with the extensible markup language (XML) schema listed on the EPA's ERT Web site. If you claim that some of the performance test information being submitted is confidential business information (CBI), you must submit a complete file generated through the use of the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT Web site, including information claimed to be CBI, on a compact disc, flash drive, or other commonly used electronic storage media to the EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT or alternate file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described earlier in this paragraph.

(ii) For data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT Web site at the time of the test, you must submit the results of the performance test to the Administrator at the appropriate address listed in § 63.13.

(2) Within 60 days after the date of completing each CEMS performance evaluation (as defined in § 63.2), you must submit the results of the performance evaluation following the procedure specified in either paragraph (h)(2)(i) or (ii) of this section.

(i) For performance evaluations of continuous monitoring systems measuring relative accuracy test audit (RATA) pollutants that are supported by the EPA's ERT as listed on the EPA's ERT Web site at the time of the evaluation, you must submit the results of the performance evaluation to

the EPA via the CEDRI. (CEDRI can be accessed through the EPA's CDX.) Performance evaluation data must be submitted in a file format generated through the use of the EPA's ERT or an alternate file format consistent with the XML schema listed on the EPA's ERT Web site. If you claim that some of the performance evaluation information being transmitted is CBI, you must submit a complete file generated through the use of the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT Web site, including information claimed to be CBI, on a compact disc, flash drive, or other commonly used electronic storage media to the EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT or alternate file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described earlier in this paragraph.

(ii) For any performance evaluations of continuous monitoring systems measuring RATA pollutants that are not supported by the EPA's ERT as listed on the ERT Web site at the time of the evaluation, you must submit the results of the performance evaluation to the Administrator at the appropriate address listed in § 63.13.

(3) You must submit all reports required by Table 9 of this subpart electronically to the EPA via the CEDRI. (CEDRI can be accessed through the EPA's CDX.) You must use the appropriate electronic report in CEDRI for this subpart. Instead of using the electronic report in CEDRI for this subpart, you may submit an alternate electronic file consistent with the XML schema listed on the CEDRI Web site (<http://www.epa.gov/ttn/chief/cedri/index.html>), once the XML schema is available. If the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, you must submit the report to the Administrator at the appropriate address listed in § 63.13. You must begin submitting reports via CEDRI no later than 90 days after the form becomes available in CEDRI.

§ 63.7555 What records must I keep?

(a) You must keep records according to paragraphs (a)(1) and (2) of this section.

(1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that you submitted, according to the requirements in § 63.10(b)(2)(xiv).

(2) Records of performance tests, fuel analyses, or other compliance demonstrations and performance evaluations as required in § 63.10(b)(2)(viii).

(3) For units in the limited use subcategory, you must keep a copy of the federally enforceable permit that limits the annual capacity factor to less than or equal to 10 percent and fuel use records for the days the boiler or process heater was operating.

(b) For each CEMS, COMS, and continuous monitoring system you must keep records according to paragraphs (b)(1) through (5) of this section.

(1) Records described in § 63.10(b)(2)(vii) through (xi).

(2) Monitoring data for continuous opacity monitoring system during a performance evaluation as required in § 63.6(h)(7)(i) and (ii).

(3) Previous (*i.e.*, superseded) versions of the performance evaluation plan as required in § 63.8(d)(3).

(4) Request for alternatives to relative accuracy test for CEMS as required in § 63.8(f)(6)(i).

(5) Records of the date and time that each deviation started and stopped.

(c) You must keep the records required in Table 8 to this subpart including records of all monitoring data and calculated averages for applicable operating limits, such as opacity, pressure drop, pH, and operating load, to show continuous compliance with each emission limit and operating limit that applies to you.

(d) For each boiler or process heater subject to an emission limit in Table 1 or 2 or Tables 11 through 15 to this subpart, you must also keep the applicable records in paragraphs (d)(1) through (11) of this section.

(1) You must keep records of monthly fuel use by each boiler or process heater, including the type(s) of fuel and amount(s) used.

(2) If you combust non-hazardous secondary materials that have been determined not to be solid waste pursuant to § 241.3(b)(1) and (2) of this chapter, you must keep a record that documents how the secondary material meets each of the legitimacy criteria under § 241.3(d)(1) of this chapter. If you combust a fuel that has been processed from a discarded non-hazardous secondary material pursuant to § 241.3(b)(4) of this chapter, you must keep records as to how the operations that produced the fuel satisfy the definition of processing in § 241.2 of this chapter. If the fuel received a non-waste determination pursuant to the petition process submitted under § 241.3(c) of this chapter, you must keep a record that documents how the fuel satisfies the requirements of the petition process. For operating units that combust non-hazardous secondary materials as fuel per § 241.4 of this chapter, you must keep records documenting that the material is listed as a non-waste under § 241.4(a) of this chapter. Units exempt from the incinerator standards under section 129(g)(1) of the Clean Air Act because they are qualifying facilities burning a homogeneous waste stream do not need to maintain the records described in this paragraph (d)(2).

(3) A copy of all calculations and supporting documentation of maximum chlorine fuel input, using Equation 7 of § 63.7530, that were done to demonstrate continuous compliance with the HCl emission limit, for sources that demonstrate compliance through performance testing. For sources that demonstrate compliance through fuel analysis, a copy of all calculations and supporting documentation of HCl emission rates, using Equation 16 of § 63.7530, that were done to demonstrate compliance with the HCl emission limit. Supporting documentation should include results of any fuel analyses and basis for the estimates of maximum chlorine fuel input or HCl emission rates. You can use the results from one fuel analysis for multiple boilers and process heaters provided they are all burning the same fuel type. However, you must calculate chlorine fuel input, or HCl emission rate, for each boiler and process heater.

(4) A copy of all calculations and supporting documentation of maximum mercury fuel input, using Equation 8 of § 63.7530, that were done to demonstrate continuous compliance with the mercury emission limit for sources that demonstrate compliance through performance testing. For sources that demonstrate compliance through fuel analysis, a copy of all calculations and supporting documentation of mercury emission rates, using Equation 17 of § 63.7530, that were done to demonstrate compliance with the mercury emission limit. Supporting documentation should include results of any fuel analyses and basis for the estimates of maximum mercury fuel input or mercury emission rates. You can use the results from one fuel analysis for multiple boilers and process heaters

provided they are all burning the same fuel type. However, you must calculate mercury fuel input, or mercury emission rates, for each boiler and process heater.

(5) If, consistent with § 63.7515(b), you choose to stack test less frequently than annually, you must keep a record that documents that your emissions in the previous stack test(s) were less than 75 percent of the applicable emission limit (or, in specific instances noted in Tables 1 and 2 or 11 through 15 to this subpart, less than the applicable emission limit), and document that there was no change in source operations including fuel composition and operation of air pollution control equipment that would cause emissions of the relevant pollutant to increase within the past year.

(6) Records of the occurrence and duration of each malfunction of the boiler or process heater, or of the associated air pollution control and monitoring equipment.

(7) Records of actions taken during periods of malfunction to minimize emissions in accordance with the general duty to minimize emissions in § 63.7500(a)(3), including corrective actions to restore the malfunctioning boiler or process heater, air pollution control, or monitoring equipment to its normal or usual manner of operation.

(8) A copy of all calculations and supporting documentation of maximum TSM fuel input, using Equation 9 of § 63.7530, that were done to demonstrate continuous compliance with the TSM emission limit for sources that demonstrate compliance through performance testing. For sources that demonstrate compliance through fuel analysis, a copy of all calculations and supporting documentation of TSM emission rates, using Equation 18 of § 63.7530, that were done to demonstrate compliance with the TSM emission limit. Supporting documentation should include results of any fuel analyses and basis for the estimates of maximum TSM fuel input or TSM emission rates. You can use the results from one fuel analysis for multiple boilers and process heaters provided they are all burning the same fuel type. However, you must calculate TSM fuel input, or TSM emission rates, for each boiler and process heater.

(9) You must maintain records of the calendar date, time, occurrence and duration of each startup and shutdown.

(10) You must maintain records of the type(s) and amount(s) of fuels used during each startup and shutdown.

(11) For each startup period, for units selecting paragraph (2) of the definition of “startup” in § 63.7575 you must maintain records of the time that clean fuel combustion begins; the time when you start feeding fuels that are not clean fuels; the time when useful thermal energy is first supplied; and the time when the PM controls are engaged.

(12) If you choose to rely on paragraph (2) of the definition of “startup” in § 63.7575, for each startup period, you must maintain records of the hourly steam temperature, hourly steam pressure, hourly steam flow, hourly flue gas temperature, and all hourly average CMS data (*e.g.*, CEMS, PM CPMS, COMS, ESP total secondary electric power input, scrubber pressure drop, scrubber liquid flow rate) collected during each startup period to confirm that the control devices are engaged. In addition, if compliance with the PM emission limit is demonstrated using a PM control device, you must maintain records as specified in paragraphs (d)(12)(i) through (iii) of this section.

(i) For a boiler or process heater with an electrostatic precipitator, record the number of fields in service, as well as each field's secondary voltage and secondary current during each hour of startup.

(ii) For a boiler or process heater with a fabric filter, record the number of compartments in service, as well as the differential pressure across the baghouse during each hour of startup.

(iii) For a boiler or process heater with a wet scrubber needed for filterable PM control, record the scrubber's liquid flow rate and the pressure drop during each hour of startup.

(13) If you choose to use paragraph (2) of the definition of "startup" in § 63.7575 and you find that you are unable to safely engage and operate your PM control(s) within 1 hour of first firing of non-clean fuels, you may choose to rely on paragraph (1) of definition of "startup" in § 63.7575 or you may submit to the delegated permitting authority a request for a variance with the PM controls requirement, as described below.

(i) The request shall provide evidence of a documented manufacturer-identified safety issue.

(ii) The request shall provide information to document that the PM control device is adequately designed and sized to meet the applicable PM emission limit.

(iii) In addition, the request shall contain documentation that:

(A) The unit is using clean fuels to the maximum extent possible to bring the unit and PM control device up to the temperature necessary to alleviate or prevent the identified safety issues prior to the combustion of primary fuel;

(B) The unit has explicitly followed the manufacturer's procedures to alleviate or prevent the identified safety issue; and

(C) Identifies with specificity the details of the manufacturer's statement of concern.

(iv) You must comply with all other work practice requirements, including but not limited to data collection, recordkeeping, and reporting requirements.

(e) If you elect to average emissions consistent with § 63.7522, you must additionally keep a copy of the emission averaging implementation plan required in § 63.7522(g), all calculations required under § 63.7522, including monthly records of heat input or steam generation, as applicable, and monitoring records consistent with § 63.7541.

(f) If you elect to use efficiency credits from energy conservation measures to demonstrate compliance according to § 63.7533, you must keep a copy of the Implementation Plan required in § 63.7533(d) and copies of all data and calculations used to establish credits according to § 63.7533(b), (c), and (f).

(g) If you elected to demonstrate that the unit meets the specification for mercury for the unit designed to burn gas 1 subcategory, you must maintain monthly records (or at the frequency required by § 63.7540(c)) of the calculations and results of the fuel specification for mercury in Table 6.

(h) If you operate a unit in the unit designed to burn gas 1 subcategory that is subject to this subpart, and you use an alternative fuel other than natural gas, refinery gas, gaseous fuel subject to another subpart under this part, other gas 1 fuel, or gaseous fuel subject to another subpart of this part or part 60, 61, or 65, you must keep records of the total hours per calendar year that alternative fuel is burned and the

total hours per calendar year that the unit operated during periods of gas curtailment or gas supply emergencies.

§ 63.7560 In what form and how long must I keep my records?

- (a) Your records must be in a form suitable and readily available for expeditious review, according to § 63.10(b)(1).
- (b) As specified in § 63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.
- (c) You must keep each record on site, or they must be accessible from on site (for example, through a computer network), for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to § 63.10(b)(1). You can keep the records off site for the remaining 3 years.

Other Requirements and Information

§ 63.7565 What parts of the General Provisions apply to me?

Table 10 to this subpart shows which parts of the General Provisions in §§ 63.1 through 63.15 apply to you.

§ 63.7570 Who implements and enforces this subpart?

- (a) This subpart can be implemented and enforced by the EPA, or an Administrator such as your state, local, or tribal agency. If the EPA Administrator has delegated authority to your state, local, or tribal agency, then that agency (as well as the EPA) has the authority to implement and enforce this subpart. You should contact your EPA Regional Office to find out if this subpart is delegated to your state, local, or tribal agency.
- (b) In delegating implementation and enforcement authority of this subpart to a state, local, or tribal agency under 40 CFR part 63, subpart E, the authorities listed in paragraphs (b)(1) through (4) of this section are retained by the EPA Administrator and are not transferred to the state, local, or tribal agency, however, the EPA retains oversight of this subpart and can take enforcement actions, as appropriate.
 - (1) Approval of alternatives to the emission limits and work practice standards in § 63.7500(a) and (b) under § 63.6(g), except as specified in § 63.7555(d)(13).
 - (2) Approval of major change to test methods in Table 5 to this subpart under § 63.7(e)(2)(ii) and (f) and as defined in § 63.90, and alternative analytical methods requested under § 63.7521(b)(2).
 - (3) Approval of major change to monitoring under § 63.8(f) and as defined in § 63.90, and approval of alternative operating parameters under §§ 63.7500(a)(2) and 63.7522(g)(2).
 - (4) Approval of major change to recordkeeping and reporting under § 63.10(e) and as defined in § 63.90.

§ 63.7575 What definitions apply to this subpart?

Terms used in this subpart are defined in the Clean Air Act, in § 63.2 (the General Provisions), and in this section as follows:

10-day rolling average means the arithmetic mean of the previous 240 hours of valid operating data. Valid data excludes hours during startup and shutdown, data collected during periods when the

monitoring system is out of control as specified in your site-specific monitoring plan, while conducting repairs associated with periods when the monitoring system is out of control, or while conducting required monitoring system quality assurance or quality control activities, and periods when this unit is not operating. The 240 hours should be consecutive, but not necessarily continuous if operations were intermittent.

12-month rolling average means the arithmetic mean of the previous 12 months of valid fuel analysis data. The 12 months should be consecutive, but not necessarily continuous if operations were intermittent.

30-day rolling average means the arithmetic mean of the previous 720 hours of valid CO CEMS data. The 720 hours should be consecutive, but not necessarily continuous if operations were intermittent. For parameters other than CO, 30-day rolling average means either the arithmetic mean of all valid hours of data from 30 successive operating days or the arithmetic mean of the previous 720 hours of valid operating data. Valid data excludes hours during startup and shutdown, data collected during periods when the monitoring system is out of control as specified in your site-specific monitoring plan, while conducting repairs associated with periods when the monitoring system is out of control, or while conducting required monitoring system quality assurance or quality control activities, and periods when this unit is not operating.

Annual capacity factor means the ratio between the actual heat input to a boiler or process heater from the fuels burned during a calendar year and the potential heat input to the boiler or process heater had it been operated for 8,760 hours during a year at the maximum steady state design heat input capacity.

Annual heat input means the heat input for the 12 months preceding the compliance demonstration.

Average annual heat input rate means total heat input divided by the hours of operation for the 12 months preceding the compliance demonstration.

Bag leak detection system means a group of instruments that are capable of monitoring particulate matter loadings in the exhaust of a fabric filter (*i.e.*, baghouse) in order to detect bag failures. A bag leak detection system includes, but is not limited to, an instrument that operates on electrodynamic, triboelectric, light scattering, light transmittance, or other principle to monitor relative particulate matter loadings.

Benchmark means the fuel heat input for a boiler or process heater for the one-year period before the date that an energy demand reduction occurs, unless it can be demonstrated that a different time period is more representative of historical operations.

Biodiesel means a mono-alkyl ester derived from biomass and conforming to ASTM D6751-11b, Standard Specification for Biodiesel Fuel Blend Stock (B100) for Middle Distillate Fuels (incorporated by reference, see § 63.14).

Biomass or bio-based solid fuel means any biomass-based solid fuel that is not a solid waste. This includes, but is not limited to, wood residue; wood products (*e.g.*, trees, tree stumps, tree limbs, bark, lumber, sawdust, sander dust, chips, scraps, slabs, millings, and shavings); animal manure, including litter and other bedding materials; vegetative agricultural and silvicultural materials, such as logging residues (slash), nut and grain hulls and chaff (*e.g.*, almond, walnut, peanut, rice, and wheat), bagasse,

orchard prunings, corn stalks, coffee bean hulls and grounds. This definition of biomass is not intended to suggest that these materials are or are not solid waste.

Blast furnace gas fuel-fired boiler or process heater means an industrial/commercial/institutional boiler or process heater that receives 90 percent or more of its total annual gas volume from blast furnace gas.

Boiler means an enclosed device using controlled flame combustion and having the primary purpose of recovering thermal energy in the form of steam or hot water. Controlled flame combustion refers to a steady-state, or near steady-state, process wherein fuel and/or oxidizer feed rates are controlled. A device combusting solid waste, as defined in § 241.3 of this chapter, is not a boiler unless the device is exempt from the definition of a solid waste incineration unit as provided in section 129(g)(1) of the Clean Air Act. Waste heat boilers are excluded from this definition.

Boiler system means the boiler and associated components, such as, the feed water system, the combustion air system, the fuel system (including burners), blowdown system, combustion control systems, steam systems, and condensate return systems.

Calendar year means the period between January 1 and December 31, inclusive, for a given year.

Clean dry biomass means any biomass-based solid fuel that have not been painted, pigment-stained, or pressure treated, does not contain contaminants at concentrations not normally associated with virgin biomass materials and has a moisture content of less than 20 percent and is not a solid waste.

Coal means all solid fuels classifiable as anthracite, bituminous, sub-bituminous, or lignite by ASTM D388 (incorporated by reference, see § 63.14), coal refuse, and petroleum coke. For the purposes of this subpart, this definition of "coal" includes synthetic fuels derived from coal, including but not limited to, solvent-refined coal, coal-oil mixtures, and coal-water mixtures. Coal derived gases are excluded from this definition.

Coal refuse means any by-product of coal mining or coal cleaning operations with an ash content greater than 50 percent (by weight) and a heating value less than 13,900 kilojoules per kilogram (6,000 Btu per pound) on a dry basis.

Commercial/institutional boiler means a boiler used in commercial establishments or institutional establishments such as medical centers, nursing homes, research centers, institutions of higher education, elementary and secondary schools, libraries, religious establishments, governmental buildings, hotels, restaurants, and laundries to provide electricity, steam, and/or hot water.

Common stack means the exhaust of emissions from two or more affected units through a single flue. Affected units with a common stack may each have separate air pollution control systems located before the common stack, or may have a single air pollution control system located after the exhausts come together in a single flue.

Cost-effective energy conservation measure means a measure that is implemented to improve the energy efficiency of the boiler or facility that has a payback (return of investment) period of 2 years or less.

Daily block average means the arithmetic mean of all valid emission concentrations or parameter levels recorded when a unit is operating measured over the 24-hour period from 12 a.m. (midnight) to 12 a.m. (midnight), except for periods of startup and shutdown or downtime.

Deviation.

- (1) *Deviation* means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:
- (i) Fails to meet any applicable requirement or obligation established by this subpart including, but not limited to, any emission limit, operating limit, or work practice standard; or
 - (ii) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit.
- (2) A deviation is not always a violation.

Dioxins/furans means tetra- through octa-chlorinated dibenzo-p-dioxins and dibenzofurans.

Distillate oil means fuel oils that contain 0.05 weight percent nitrogen or less and comply with the specifications for fuel oil numbers 1 and 2, as defined by the American Society of Testing and Materials in ASTM D396 (incorporated by reference, see § 63.14) or diesel fuel oil numbers 1 and 2, as defined by the American Society for Testing and Materials in ASTM D975 (incorporated by reference, see § 63.14), kerosene, and biodiesel as defined by the American Society of Testing and Materials in ASTM D6751-11b (incorporated by reference, see § 60.14).

Dry scrubber means an add-on air pollution control system that injects dry alkaline sorbent (dry injection) or sprays an alkaline sorbent (spray dryer) to react with and neutralize acid gas in the exhaust stream forming a dry powder material. Sorbent injection systems used as control devices in fluidized bed boilers and process heaters are included in this definition. A dry scrubber is a dry control system.

Dutch oven means a unit having a refractory-walled cell connected to a conventional boiler setting. Fuel materials are introduced through an opening in the roof of the dutch oven and burn in a pile on its floor. Fluidized bed boilers are not part of the dutch oven design category.

Efficiency credit means emission reductions above those required by this subpart. Efficiency credits generated may be used to comply with the emissions limits. Credits may come from pollution prevention projects that result in reduced fuel use by affected units. Boilers that are shut down cannot be used to generate credits unless the facility provides documentation linking the permanent shutdown to implementation of the energy conservation measures identified in the energy assessment.

Electric utility steam generating unit (EGU) means a fossil fuel-fired combustion unit of more than 25 megawatts electric (MWe) that serves a generator that produces electricity for sale. A fossil fuel-fired unit that cogenerates steam and electricity and supplies more than one-third of its potential electric output capacity and more than 25 MWe output to any utility power distribution system for sale is considered an electric utility steam generating unit. To be “capable of combusting” fossil fuels, an EGU would need to have these fuels allowed in their operating permits and have the appropriate fuel handling facilities on-site or otherwise available (e.g., coal handling equipment, including coal storage area, belts and conveyers, pulverizers, etc.; oil storage facilities). In addition, fossil fuel-fired EGU means any EGU that fired fossil fuel for more than 10.0 percent of the average annual heat input in any 3 consecutive calendar years or for more than 15.0 percent of the annual heat input during any one calendar year after April 16, 2012.

Electrostatic precipitator (ESP) means an add-on air pollution control device used to capture particulate matter by charging the particles using an electrostatic field, collecting the particles using a grounded collecting surface, and transporting the particles into a hopper. An electrostatic precipitator is usually a dry control system.

Energy assessment means the following for the emission units covered by this subpart:

- (1) The energy assessment for facilities with affected boilers and process heaters with a combined heat input capacity of less than 0.3 trillion Btu (TBtu) per year will be 8 on-site technical labor hours in length maximum, but may be longer at the discretion of the owner or operator of the affected source. The boiler system(s), process heater(s), and any on-site energy use system(s) accounting for at least 50 percent of the affected boiler(s) energy (*e.g.*, steam, hot water, process heat, or electricity) production, as applicable, will be evaluated to identify energy savings opportunities, within the limit of performing an 8-hour on-site energy assessment.
- (2) The energy assessment for facilities with affected boilers and process heaters with a combined heat input capacity of 0.3 to 1.0 TBtu/year will be 24 on-site technical labor hours in length maximum, but may be longer at the discretion of the owner or operator of the affected source. The boiler system(s), process heater(s), and any on-site energy use system(s) accounting for at least 33 percent of the energy (*e.g.*, steam, hot water, process heat, or electricity) production, as applicable, will be evaluated to identify energy savings opportunities, within the limit of performing a 24-hour on-site energy assessment.
- (3) The energy assessment for facilities with affected boilers and process heaters with a combined heat input capacity greater than 1.0 TBtu/year will be up to 24 on-site technical labor hours in length for the first TBtu/yr plus 8 on-site technical labor hours for every additional 1.0 TBtu/yr not to exceed 160 on-site technical hours, but may be longer at the discretion of the owner or operator of the affected source. The boiler system(s), process heater(s), and any on-site energy use system(s) accounting for at least 20 percent of the energy (*e.g.*, steam, process heat, hot water, or electricity) production, as applicable, will be evaluated to identify energy savings opportunities.
- (4) The on-site energy use systems serving as the basis for the percent of affected boiler(s) and process heater(s) energy production in paragraphs (1), (2), and (3) of this definition may be segmented by production area or energy use area as most logical and applicable to the specific facility being assessed (*e.g.*, product X manufacturing area; product Y drying area; Building Z).

Energy management practices means the set of practices and procedures designed to manage energy use that are demonstrated by the facility's energy policies, a facility energy manager and other staffing responsibilities, energy performance measurement and tracking methods, an energy saving goal, action plans, operating procedures, internal reporting requirements, and periodic review intervals used at the facility.

Energy management program means a program that includes a set of practices and procedures designed to manage energy use that are demonstrated by the facility's energy policies, a facility energy manager and other staffing responsibilities, energy performance measurement and tracking methods, an energy saving goal, action plans, operating procedures, internal reporting requirements, and periodic

review intervals used at the facility. Facilities may establish their program through energy management systems compatible with ISO 50001.

Energy use system includes the following systems located on-site that use energy (steam, hot water, or electricity) provided by the affected boiler or process heater: process heating; compressed air systems; machine drive (motors, pumps, fans); process cooling; facility heating, ventilation, and air-conditioning systems; hot water systems; building envelop; and lighting; or other systems that use steam, hot water, process heat, or electricity provided by the affected boiler or process heater. Energy use systems are only those systems using energy clearly produced by affected boilers and process heaters.

Equivalent means the following only as this term is used in Table 6 to this subpart:

- (1) An equivalent sample collection procedure means a published voluntary consensus standard or practice (VCS) or EPA method that includes collection of a minimum of three composite fuel samples, with each composite consisting of a minimum of three increments collected at approximately equal intervals over the test period.
- (2) An equivalent sample compositing procedure means a published VCS or EPA method to systematically mix and obtain a representative subsample (part) of the composite sample.
- (3) An equivalent sample preparation procedure means a published VCS or EPA method that: Clearly states that the standard, practice or method is appropriate for the pollutant and the fuel matrix; or is cited as an appropriate sample preparation standard, practice or method for the pollutant in the chosen VCS or EPA determinative or analytical method.
- (4) An equivalent procedure for determining heat content means a published VCS or EPA method to obtain gross calorific (or higher heating) value.
- (5) An equivalent procedure for determining fuel moisture content means a published VCS or EPA method to obtain moisture content. If the sample analysis plan calls for determining metals (especially the mercury, selenium, or arsenic) using an aliquot of the dried sample, then the drying temperature must be modified to prevent vaporizing these metals. On the other hand, if metals analysis is done on an "as received" basis, a separate aliquot can be dried to determine moisture content and the metals concentration mathematically adjusted to a dry basis.
- (6) An equivalent pollutant (mercury, HCl) determinative or analytical procedure means a published VCS or EPA method that clearly states that the standard, practice, or method is appropriate for the pollutant and the fuel matrix and has a published detection limit equal or lower than the methods listed in Table 6 to this subpart for the same purpose.

Fabric filter means an add-on air pollution control device used to capture particulate matter by filtering gas streams through filter media, also known as a baghouse. A fabric filter is a dry control system.

Federally enforceable means all limitations and conditions that are enforceable by the EPA Administrator, including, but not limited to, the requirements of 40 CFR parts 60, 61, 63, and 65, requirements within any applicable state implementation plan, and any permit requirements established under 40 CFR 52.21 or under 40 CFR 51.18 and 40 CFR 51.24.

Fluidized bed boiler means a boiler utilizing a fluidized bed combustion process that is not a pulverized coal boiler.

Fluidized bed boiler with an integrated fluidized bed heat exchanger means a boiler utilizing a fluidized bed combustion where the entire tube surface area is located outside of the furnace section at the exit of the cyclone section and exposed to the flue gas stream for conductive heat transfer. This design applies only to boilers in the unit designed to burn coal/solid fossil fuel subcategory that fire coal refuse.

Fluidized bed combustion means a process where a fuel is burned in a bed of granulated particles, which are maintained in a mobile suspension by the forward flow of air and combustion products.

Fossil fuel means natural gas, oil, coal, and any form of solid, liquid, or gaseous fuel derived from such material.

Fuel cell means a boiler type in which the fuel is dropped onto suspended fixed grates and is fired in a pile. The refractory-lined fuel cell uses combustion air preheating and positioning of secondary and tertiary air injection ports to improve boiler efficiency. Fluidized bed, dutch oven, pile burner, hybrid suspension grate, and suspension burners are not part of the fuel cell subcategory.

Fuel type means each category of fuels that share a common name or classification. Examples include, but are not limited to, bituminous coal, sub-bituminous coal, lignite, anthracite, biomass, distillate oil, residual oil. Individual fuel types received from different suppliers are not considered new fuel types.

Gaseous fuel includes, but is not limited to, natural gas, process gas, landfill gas, coal derived gas, refinery gas, and biogas. Blast furnace gas and process gases that are regulated under another subpart of this part, or part 60, part 61, or part 65 of this chapter, are exempted from this definition.

Heat input means heat derived from combustion of fuel in a boiler or process heater and does not include the heat input from preheated combustion air, recirculated flue gases, returned condensate, or exhaust gases from other sources such as gas turbines, internal combustion engines, kilns, etc.

Heavy liquid includes residual oil and any other liquid fuel not classified as a light liquid.

Hourly average means the arithmetic average of at least four CMS data values representing the four 15-minute periods in an hour, or at least two 15-minute data values during an hour when CMS calibration, quality assurance, or maintenance activities are being performed.

Hot water heater means a closed vessel with a capacity of no more than 120 U.S. gallons in which water is heated by combustion of gaseous, liquid, or biomass/bio-based solid fuel and is withdrawn for use external to the vessel. Hot water boilers (i.e., not generating steam) combusting gaseous, liquid, or biomass fuel with a heat input capacity of less than 1.6 million Btu per hour are included in this definition. The 120 U.S. gallon capacity threshold to be considered a hot water heater is independent of the 1.6 MMBtu/hr heat input capacity threshold for hot water boilers. Hot water heater also means a tankless unit that provides on demand hot water.

Hybrid suspension grate boiler means a boiler designed with air distributors to spread the fuel material over the entire width and depth of the boiler combustion zone. The biomass fuel combusted in these units exceeds a moisture content of 40 percent on an as-fired annual heat input basis as demonstrated by monthly fuel analysis. The drying and much of the combustion of the fuel takes place in suspension,

and the combustion is completed on the grate or floor of the boiler. Fluidized bed, dutch oven, and pile burner designs are not part of the hybrid suspension grate boiler design category.

Industrial boiler means a boiler used in manufacturing, processing, mining, and refining or any other industry to provide steam, hot water, and/or electricity.

Light liquid includes distillate oil, biodiesel, or vegetable oil.

Limited-use boiler or process heater means any boiler or process heater that burns any amount of solid, liquid, or gaseous fuels and has a federally enforceable annual capacity factor of no more than 10 percent.

Liquid fuel includes, but is not limited to, light liquid, heavy liquid, any form of liquid fuel derived from petroleum, used oil, liquid biofuels, biodiesel, and vegetable oil.

Load fraction means the actual heat input of a boiler or process heater divided by heat input during the performance test that established the minimum sorbent injection rate or minimum activated carbon injection rate, expressed as a fraction (*e.g.*, for 50 percent load the load fraction is 0.5). For boilers and process heaters that co-fire natural gas or refinery gas with a solid or liquid fuel, the load fraction is determined by the actual heat input of the solid or liquid fuel divided by heat input of the solid or liquid fuel fired during the performance test (*e.g.*, if the performance test was conducted at 100 percent solid fuel firing, for 100 percent load firing 50 percent solid fuel and 50 percent natural gas the load fraction is 0.5).

Major source for oil and natural gas production facilities, as used in this subpart, shall have the same meaning as in § 63.2, except that:

- (1) Emissions from any oil or gas exploration or production well (with its associated equipment, as defined in this section), and emissions from any pipeline compressor station or pump station shall not be aggregated with emissions from other similar units to determine whether such emission points or stations are major sources, even when emission points are in a contiguous area or under common control;
- (2) Emissions from processes, operations, or equipment that are not part of the same facility, as defined in this section, shall not be aggregated; and
- (3) For facilities that are production field facilities, only HAP emissions from glycol dehydration units and storage vessels with the potential for flash emissions shall be aggregated for a major source determination. For facilities that are not production field facilities, HAP emissions from all HAP emission units shall be aggregated for a major source determination.

Metal process furnaces are a subcategory of process heaters, as defined in this subpart, which include natural gas-fired annealing furnaces, preheat furnaces, reheat furnaces, aging furnaces, heat treat furnaces, and homogenizing furnaces.

Million Btu (MMBtu) means one million British thermal units.

Minimum activated carbon injection rate means load fraction multiplied by the lowest hourly average activated carbon injection rate measured according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable emission limit.

Minimum oxygen level means the lowest hourly average oxygen level measured according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable emission limit.

Minimum pressure drop means the lowest hourly average pressure drop measured according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable emission limit.

Minimum scrubber effluent pH means the lowest hourly average sorbent liquid pH measured at the inlet to the wet scrubber according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable hydrogen chloride emission limit.

Minimum scrubber liquid flow rate means the lowest hourly average liquid flow rate (e.g., to the PM scrubber or to the acid gas scrubber) measured according to Table 7 to this subpart during the most recent performance stack test demonstrating compliance with the applicable emission limit.

Minimum scrubber pressure drop means the lowest hourly average scrubber pressure drop measured according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable emission limit.

Minimum sorbent injection rate means:

- (1) The load fraction multiplied by the lowest hourly average sorbent injection rate for each sorbent measured according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable emission limits; or
- (2) For fluidized bed combustion not using an acid gas wet scrubber or dry sorbent injection control technology to comply with the HCl emission limit, the lowest average ratio of sorbent to sulfur measured during the most recent performance test.

Minimum total secondary electric power means the lowest hourly average total secondary electric power determined from the values of secondary voltage and secondary current to the electrostatic precipitator measured according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable emission limits.

Natural gas means:

- (1) A naturally occurring mixture of hydrocarbon and nonhydrocarbon gases found in geologic formations beneath the earth's surface, of which the principal constituent is methane; or
- (2) Liquefied petroleum gas, as defined in ASTM D1835 (incorporated by reference, see § 63.14); or
- (3) A mixture of hydrocarbons that maintains a gaseous state at ISO conditions. Additionally, natural gas must either be composed of at least 70 percent methane by volume or have a gross calorific value between 35 and 41 megajoules (MJ) per dry standard cubic meter (950 and 1,100 Btu per dry standard cubic foot); or
- (4) Propane or propane derived synthetic natural gas. Propane means a colorless gas derived from petroleum and natural gas, with the molecular structure C_3H_8 .

Opacity means the degree to which emissions reduce the transmission of light and obscure the view of an object in the background.

Operating day means a 24-hour period between 12 midnight and the following midnight during which any fuel is combusted at any time in the boiler or process heater unit. It is not necessary for fuel to be combusted for the entire 24-hour period. For calculating rolling average emissions, an operating day does not include the hours of operation during startup or shutdown.

Other combustor means a unit designed to burn solid fuel that is not classified as a dutch oven, fluidized bed, fuel cell, hybrid suspension grate boiler, pulverized coal boiler, stoker, sloped grate, or suspension boiler as defined in this subpart.

Other gas 1 fuel means a gaseous fuel that is not natural gas or refinery gas and does not exceed a maximum mercury concentration of 40 micrograms/cubic meters of gas.

Oxygen analyzer system means all equipment required to determine the oxygen content of a gas stream and used to monitor oxygen in the boiler or process heater flue gas, boiler or process heater, firebox, or other appropriate location. This definition includes oxygen trim systems. The source owner or operator must install, calibrate, maintain, and operate the oxygen analyzer system in accordance with the manufacturer's recommendations.

Oxygen trim system means a system of monitors that is used to maintain excess air at the desired level in a combustion device over its operating load range. A typical system consists of a flue gas oxygen and/or CO monitor that automatically provides a feedback signal to the combustion air controller or draft controller.

Particulate matter (PM) means any finely divided solid or liquid material, other than uncombined water, as measured by the test methods specified under this subpart, or an approved alternative method.

Period of gas curtailment or supply interruption means a period of time during which the supply of gaseous fuel to an affected boiler or process heater is restricted or halted for reasons beyond the control of the facility. The act of entering into a contractual agreement with a supplier of natural gas established for curtailment purposes does not constitute a reason that is under the control of a facility for the purposes of this definition. An increase in the cost or unit price of natural gas due to normal market fluctuations not during periods of supplier delivery restriction does not constitute a period of natural gas curtailment or supply interruption. On-site gaseous fuel system emergencies or equipment failures qualify as periods of supply interruption when an emergency or failure is beyond the control of the facility.

Pile burner means a boiler design incorporating a design where the anticipated biomass fuel has a high relative moisture content. Grates serve to support the fuel, and underfire air flowing up through the grates provides oxygen for combustion, cools the grates, promotes turbulence in the fuel bed, and fires the fuel. The most common form of pile burning is the dutch oven.

Process heater means an enclosed device using controlled flame, and the unit's primary purpose is to transfer heat indirectly to a process material (liquid, gas, or solid) or to a heat transfer material (e.g., glycol or a mixture of glycol and water) for use in a process unit, instead of generating steam. Process heaters are devices in which the combustion gases do not come into direct contact with process materials. A device combusting solid waste, as defined in § 241.3 of this chapter, is not a process heater unless the device is exempt from the definition of a solid waste incineration unit as provided in section 129(g)(1) of the Clean Air Act. Process heaters do not include units used for comfort heat

or space heat, food preparation for on-site consumption, or autoclaves. Waste heat process heaters are excluded from this definition.

Pulverized coal boiler means a boiler in which pulverized coal or other solid fossil fuel is introduced into an air stream that carries the coal to the combustion chamber of the boiler where it is fired in suspension.

Qualified energy assessor means:

- (1) Someone who has demonstrated capabilities to evaluate energy savings opportunities for steam generation and major energy using systems, including, but not limited to:
 - (i) Boiler combustion management.
 - (ii) Boiler thermal energy recovery, including
 - (A) Conventional feed water economizer,
 - (B) Conventional combustion air preheater, and
 - (C) Condensing economizer.
 - (iii) Boiler blowdown thermal energy recovery.
 - (iv) Primary energy resource selection, including
 - (A) Fuel (primary energy source) switching, and
 - (B) Applied steam energy versus direct-fired energy versus electricity.
 - (v) Insulation issues.
 - (vi) Steam trap and steam leak management.
 - (vi) Condensate recovery.
 - (viii) Steam end-use management.
- (2) Capabilities and knowledge includes, but is not limited to:
 - (i) Background, experience, and recognized abilities to perform the assessment activities, data analysis, and report preparation.
 - (ii) Familiarity with operating and maintenance practices for steam or process heating systems.
 - (iii) Additional potential steam system improvement opportunities including improving steam turbine operations and reducing steam demand.
 - (iv) Additional process heating system opportunities include effective utilization of waste heat and use of proper process heating methods.
 - (v) Boiler-steam turbine cogeneration systems.
 - (vi) Industry specific steam end-use systems.

Refinery gas means any gas that is generated at a petroleum refinery and is combusted. Refinery gas includes natural gas when the natural gas is combined and combusted in any proportion with a gas

generated at a refinery. Refinery gas includes gases generated from other facilities when that gas is combined and combusted in any proportion with gas generated at a refinery.

Regulated gas stream means an offgas stream that is routed to a boiler or process heater for the purpose of achieving compliance with a standard under another subpart of this part or part 60, part 61, or part 65 of this chapter.

Residential boiler means a boiler used to provide heat and/or hot water and/or as part of a residential combined heat and power system. This definition includes boilers located at an institutional facility (e.g., university campus, military base, church grounds) or commercial/industrial facility (e.g., farm) used primarily to provide heat and/or hot water for:

- (1) A dwelling containing four or fewer families; or
- (2) A single unit residence dwelling that has since been converted or subdivided into condominiums or apartments.

Residual oil means crude oil, fuel oil that does not comply with the specifications under the definition of distillate oil, and all fuel oil numbers 4, 5, and 6, as defined by the American Society of Testing and Materials in ASTM D396-10 (incorporated by reference, see § 63.14(b)).

Responsible official means responsible official as defined in § 70.2.

Rolling average means the average of all data collected during the applicable averaging period. For demonstration of compliance with a CO CEMS-based emission limit based on CO concentration a 30-day (10-day) rolling average is comprised of the average of all the hourly average concentrations over the previous 720 (240) operating hours calculated each operating day. To demonstrate compliance on a 30-day rolling average basis for parameters other than CO, you must indicate the basis of the 30-day rolling average period you are using for compliance, as discussed in § 63.7545(e)(2)(iii). If you indicate the 30 operating day basis, you must calculate a new average value each operating day and shall include the measured hourly values for the preceding 30 operating days. If you select the 720 operating hours basis, you must average of all the hourly average concentrations over the previous 720 operating hours calculated each operating day.

Secondary material means the material as defined in § 241.2 of this chapter.

Shutdown means the period in which cessation of operation of a boiler or process heater is initiated for any purpose. Shutdown begins when the boiler or process heater no longer supplies useful thermal energy (such as heat or steam) for heating, cooling, or process purposes and/or generates electricity or when no fuel is being fed to the boiler or process heater, whichever is earlier. Shutdown ends when the boiler or process heater no longer supplies useful thermal energy (such as steam or heat) for heating, cooling, or process purposes and/or generates electricity, and no fuel is being combusted in the boiler or process heater.

Sloped grate means a unit where the solid fuel is fed to the top of the grate from where it slides downwards; while sliding the fuel first dries and then ignites and burns. The ash is deposited at the bottom of the grate. Fluidized bed, dutch oven, pile burner, hybrid suspension grate, suspension burners, and fuel cells are not considered to be a sloped grate design.

Solid fossil fuel includes, but is not limited to, coal, coke, petroleum coke, and tire derived fuel.

Solid fuel means any solid fossil fuel or biomass or bio-based solid fuel.

Startup means:

- (1) Either the first-ever firing of fuel in a boiler or process heater for the purpose of supplying useful thermal energy for heating and/or producing electricity, or for any other purpose, or the firing of fuel in a boiler after a shutdown event for any purpose. Startup ends when any of the useful thermal energy from the boiler or process heater is supplied for heating, and/or producing electricity, or for any other purpose, or
- (2) The period in which operation of a boiler or process heater is initiated for any purpose. Startup begins with either the first-ever firing of fuel in a boiler or process heater for the purpose of supplying useful thermal energy (such as steam or heat) for heating, cooling or process purposes, or producing electricity, or the firing of fuel in a boiler or process heater for any purpose after a shutdown event. Startup ends four hours after when the boiler or process heater supplies useful thermal energy (such as heat or steam) for heating, cooling, or process purposes, or generates electricity, whichever is earlier.

Steam output means:

- (1) For a boiler that produces steam for process or heating only (no power generation), the energy content in terms of MMBtu of the boiler steam output,
- (2) For a boiler that cogenerates process steam and electricity (also known as combined heat and power), the total energy output, which is the sum of the energy content of the steam exiting the turbine and sent to process in MMBtu and the energy of the electricity generated converted to MMBtu at a rate of 10,000 Btu per kilowatt-hour generated (10 MMBtu per megawatt-hour), and
- (3) For a boiler that generates only electricity, the alternate output-based emission limits would be the appropriate emission limit from Table 1, 2, 14, or 15 to this subpart in units of pounds per million Btu heat input (lb per MWh).
- (4) For a boiler that performs multiple functions and produces steam to be used for any combination of paragraphs (1), (2), and (3) of this definition that includes electricity generation of paragraph (3) of this definition, the total energy output, in terms of MMBtu of steam output, is the sum of the energy content of steam sent directly to the process and/or used for heating (S_1), the energy content of turbine steam sent to process plus energy in electricity according to paragraph (2) of this definition (S_2), and the energy content of electricity generated by a electricity only turbine as paragraph (3) of this definition ($MW_{(3)}$) and would be calculated using Equation 1 to this definition. In the case of boilers supplying steam to one or more common headers, S_1 , S_2 , and $MW_{(3)}$ for each boiler would be calculated based on its (steam energy) contribution (fraction of total steam energy) to the common header.

Equation 1 to the definition *Steam Output*

$$SO_M = S_1 + S_2 + (MW_{(3)} \times CFn) \quad (\text{Eq. 1})$$

Where:

SO_M = Total steam output for multi-function boiler, MMBtu.

S_1 = Energy content of steam sent directly to the process and/or used for heating, MMBtu.

S_2 = Energy content of turbine steam sent to the process plus energy in electricity according to paragraph (2) of this definition, MMBtu.

$MW_{(3)}$ = Electricity generated according to paragraph (3) of this definition, MWh.

CF_n = Conversion factor for the appropriate subcategory for converting electricity generated according to paragraph (3) of this definition to equivalent steam energy, MMBtu/MWh.

CF_n for emission limits for boilers in the unit designed to burn solid fuel subcategory = 10.8.

CF_n PM and CO emission limits for boilers in one of the subcategories of units designed to burn coal = 11.7.

CF_n PM and CO emission limits for boilers in one of the subcategories of units designed to burn biomass = 12.1.

CF_n for emission limits for boilers in one of the subcategories of units designed to burn liquid fuel = 11.2.

CF_n for emission limits for boilers in the unit designed to burn gas 2 (other) subcategory = 6.2.

Stoker means a unit consisting of a mechanically operated fuel feeding mechanism, a stationary or moving grate to support the burning of fuel and admit under-grate air to the fuel, an overfire air system to complete combustion, and an ash discharge system. This definition of stoker includes air swept stokers. There are two general types of stokers: Underfeed and overfeed. Overfeed stokers include mass feed and spreader stokers. Fluidized bed, dutch oven, pile burner, hybrid suspension grate, suspension burners, and fuel cells are not considered to be a stoker design.

Stoker/sloped grate/other unit designed to burn kiln dried biomass means the unit is in the units designed to burn biomass/bio-based solid subcategory that is either a stoker, sloped grate, or other combustor design and is not in the stoker/sloped grate/other units designed to burn wet biomass subcategory.

Stoker/sloped grate/other unit designed to burn wet biomass means the unit is in the units designed to burn biomass/bio-based solid subcategory that is either a stoker, sloped grate, or other combustor design and any of the biomass/bio-based solid fuel combusted in the unit exceeds 20 percent moisture on an annual heat input basis.

Suspension burner means a unit designed to fire dry biomass/biobased solid particles in suspension that are conveyed in an airstream to the furnace like pulverized coal. The combustion of the fuel material is completed on a grate or floor below. The biomass/biobased fuel combusted in the unit shall not exceed 20 percent moisture on an annual heat input basis. Fluidized bed, dutch oven, pile burner, and hybrid suspension grate units are not part of the suspension burner subcategory.

Temporary boiler means any gaseous or liquid fuel boiler or process heater that is designed to, and is capable of, being carried or moved from one location to another by means of, for example, wheels, skids, carrying handles, dollies, trailers, or platforms. A boiler or process heater is not a temporary boiler or process heater if any one of the following conditions exists:

- (1) The equipment is attached to a foundation.

- (2) The boiler or process heater or a replacement remains at a location within the facility and performs the same or similar function for more than 12 consecutive months, unless the regulatory agency approves an extension. An extension may be granted by the regulating agency upon petition by the owner or operator of a unit specifying the basis for such a request. Any temporary boiler or process heater that replaces a temporary boiler or process heater at a location and performs the same or similar function will be included in calculating the consecutive time period.
- (3) The equipment is located at a seasonal facility and operates during the full annual operating period of the seasonal facility, remains at the facility for at least 2 years, and operates at that facility for at least 3 months each year.
- (4) The equipment is moved from one location to another within the facility but continues to perform the same or similar function and serve the same electricity, process heat, steam, and/or hot water system in an attempt to circumvent the residence time requirements of this definition.

Total selected metals (TSM) means the sum of the following metallic hazardous air pollutants: arsenic, beryllium, cadmium, chromium, lead, manganese, nickel and selenium.

Traditional fuel means the fuel as defined in § 241.2 of this chapter.

Tune-up means adjustments made to a boiler or process heater in accordance with the procedures outlined in § 63.7540(a)(10).

Ultra low sulfur liquid fuel means a distillate oil that has less than or equal to 15 ppm sulfur.

Unit designed to burn biomass/bio-based solid subcategory includes any boiler or process heater that burns at least 10 percent biomass or bio-based solids on an annual heat input basis in combination with solid fossil fuels, liquid fuels, or gaseous fuels.

Unit designed to burn coal/solid fossil fuel subcategory includes any boiler or process heater that burns any coal or other solid fossil fuel alone or at least 10 percent coal or other solid fossil fuel on an annual heat input basis in combination with liquid fuels, gaseous fuels, or less than 10 percent biomass and bio-based solids on an annual heat input basis.

Unit designed to burn gas 1 subcategory includes any boiler or process heater that burns only natural gas, refinery gas, and/or other gas 1 fuels. Gaseous fuel boilers and process heaters that burn liquid fuel for periodic testing of liquid fuel, maintenance, or operator training, not to exceed a combined total of 48 hours during any calendar year, are included in this definition. Gaseous fuel boilers and process heaters that burn liquid fuel during periods of gas curtailment or gas supply interruptions of any duration are also included in this definition.

Unit designed to burn gas 2 (other) subcategory includes any boiler or process heater that is not in the unit designed to burn gas 1 subcategory and burns any gaseous fuels either alone or in combination with less than 10 percent coal/solid fossil fuel, and less than 10 percent biomass/bio-based solid fuel on an annual heat input basis, and no liquid fuels. Gaseous fuel boilers and process heaters that are not in the unit designed to burn gas 1 subcategory and that burn liquid fuel for periodic testing of liquid fuel, maintenance, or operator training, not to exceed a combined total of 48 hours during any calendar year, are included in this definition. Gaseous fuel boilers and process heaters that are not in

the unit designed to burn gas 1 subcategory and that burn liquid fuel during periods of gas curtailment or gas supply interruption of any duration are also included in this definition.

Unit designed to burn heavy liquid subcategory means a unit in the unit designed to burn liquid subcategory where at least 10 percent of the heat input from liquid fuels on an annual heat input basis comes from heavy liquids.

Unit designed to burn light liquid subcategory means a unit in the unit designed to burn liquid subcategory that is not part of the unit designed to burn heavy liquid subcategory.

Unit designed to burn liquid subcategory includes any boiler or process heater that burns any liquid fuel, but less than 10 percent coal/solid fossil fuel and less than 10 percent biomass/bio-based solid fuel on an annual heat input basis, either alone or in combination with gaseous fuels. Units in the unit design to burn gas 1 or unit designed to burn gas 2 (other) subcategories that burn liquid fuel for periodic testing of liquid fuel, maintenance, or operator training, not to exceed a combined total of 48 hours during any calendar year are not included in this definition. Units in the unit design to burn gas 1 or unit designed to burn gas 2 (other) subcategories during periods of gas curtailment or gas supply interruption of any duration are also not included in this definition.

Unit designed to burn liquid fuel that is a non-continental unit means an industrial, commercial, or institutional boiler or process heater meeting the definition of the unit designed to burn liquid subcategory located in the State of Hawaii, the Virgin Islands, Guam, American Samoa, the Commonwealth of Puerto Rico, or the Northern Mariana Islands.

Unit designed to burn solid fuel subcategory means any boiler or process heater that burns only solid fuels or at least 10 percent solid fuel on an annual heat input basis in combination with liquid fuels or gaseous fuels.

Useful thermal energy means energy (*i.e.*, steam, hot water, or process heat) that meets the minimum operating temperature, flow, and/or pressure required by any energy use system that uses energy provided by the affected boiler or process heater.

Vegetable oil means oils extracted from vegetation.

Voluntary Consensus Standards or VCS mean technical standards (*e.g.*, materials specifications, test methods, sampling procedures, business practices) developed or adopted by one or more voluntary consensus bodies. EPA/Office of Air Quality Planning and Standards, by precedent, has only used VCS that are written in English. Examples of VCS bodies are: American Society of Testing and Materials (ASTM 100 Barr Harbor Drive, P.O. Box CB700, West Conshohocken, Pennsylvania 19428-B2959, (800) 262-1373, <http://www.astm.org>), American Society of Mechanical Engineers (ASME, Three Park Avenue, New York, NY 10016-5990, (800) 843-2763, <http://www.asme.org>), International Standards Organization (ISO 1, ch. de la Voie-Creuse, Case postale 56, CH-1211 Geneva 20, Switzerland, + 41 22 749 01 11, <http://www.iso.org/iso/home.htm>), Standards Australia (AS Level 10, The Exchange Centre, 20 Bridge Street, Sydney, GPO Box 476, Sydney NSW 2001, + 61 2 9237 6171 <http://www.stadards.org.au>), British Standards Institution (BSI, 389 Chiswick High Road, London, W4 4AL, United Kingdom, + 44 (0)20 8996 9001, <http://www.bsigroup.com>), Canadian Standards Association (CSA 5060 Spectrum Way, Suite 100, Mississauga, Ontario L4W 5N6, Canada, 800-463-6727, <http://www.csa.ca>), European Committee for Standardization (CEN CENELEC Management Centre Avenue Marnix 17 B-1000 Brussels, Belgium + 32 2 550 08 11, <http://www.cen.eu/cen>), and

German Engineering Standards (VDI Guidelines Department, P.O. Box 10 11 39 40002, Duesseldorf, Germany, + 49 211 6214-230, <http://www.vdi.eu>). The types of standards that are not considered VCS are standards developed by: The United States, *e.g.*, California (CARB) and Texas (TCEQ); industry groups, such as American Petroleum Institute (API), Gas Processors Association (GPA), and Gas Research Institute (GRI); and other branches of the U.S. government, *e.g.*, Department of Defense (DOD) and Department of Transportation (DOT). This does not preclude EPA from using standards developed by groups that are not VCS bodies within their rule. When this occurs, EPA has done searches and reviews for VCS equivalent to these non-EPA methods.

Waste heat boiler means a device that recovers normally unused energy (i.e., hot exhaust gas) and converts it to usable heat. Waste heat boilers are also referred to as heat recovery steam generators. Waste heat boilers are heat exchangers generating steam from incoming hot exhaust gas from an industrial (e.g., thermal oxidizer, kiln, furnace) or power (e.g., combustion turbine, engine) equipment. Duct burners are sometimes used to increase the temperature of the incoming hot exhaust gas.

Waste heat process heater means an enclosed device that recovers normally unused energy (i.e., hot exhaust gas) and converts it to usable heat. Waste heat process heaters are also referred to as recuperative process heaters. This definition includes both fired and unfired waste heat process heaters.

Wet scrubber means any add-on air pollution control device that mixes an aqueous stream or slurry with the exhaust gases from a boiler or process heater to control emissions of particulate matter or to absorb and neutralize acid gases, such as hydrogen chloride. A wet scrubber creates an aqueous stream or slurry as a byproduct of the emissions control process.

Work practice standard means any design, equipment, work practice, or operational standard, or combination thereof, that is promulgated pursuant to section 112(h) of the Clean Air Act.

Table 1 to Subpart DDDDD of Part 63 - Emission Limits for New or Reconstructed Boilers and Process Heaters ^c

As stated in § 63.7500, you must comply with the following applicable emission limits:

Table 1 to Subpart DDDDD of Part 63 - Emission Limits for New or Reconstructed Boilers and Process Heaters ^c

[Units with heat input capacity of 10 million Btu per hour or greater]

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during startup and shutdown . . .	Or the emissions must not exceed the following alternative output-based limits, except during startup and shutdown . . .	Using this specified sampling
1. Units in all subcategories designed to burn solid fuel	a. HCl	2.1E-04 ^a lb per MMBtu of heat input	2.9E-04 ^a lb per MMBtu of steam output or 2.7E-03 ^a lb per MWh	For M26A, collect a minimum of 1 dscm per run; for M26 collect a minimum of 120 liters per run.
	b. Mercury	8.0E-07 ^a lb per MMBtu of heat input	8.7E-07 ^a lb per MMBtu of steam output or 1.1E-05 ^a lb per MWh	For M29, collect a minimum of 4 dscm per run; for M30A or M30B, collect a minimum sample as specified in the

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during startup and shutdown . . .	Or the emissions must not exceed the following alternative output-based limits, except during startup and shutdown . . .	Using this specified sampling method; for ASTM D6784 ^b collect a minimum of 4 dscm.
2. Units designed to burn coal/solid fossil fuel	a. Filterable PM (or TSM)	1.1E-03 lb per MMBtu of heat input; or (2.3E-05 lb per MMBtu of heat input)	1.1E-03 lb per MMBtu of steam output or 1.4E-02 lb per MWh; or (2.7E-05 lb per MMBtu of steam output or 2.9E-04 lb per MWh)	Collect a minimum of 3 dscm per run.
3. Pulverized coal boilers designed to burn coal/solid fossil fuel	a. Carbon monoxide (CO) (or CEMS)	130 ppm by volume on a dry basis corrected to 3-percent oxygen, 3-run average; or (320 ppm by volume on a dry basis corrected to 3-percent oxygen, ^d 30-day rolling average)	0.11 lb per MMBtu of steam output or 1.4 lb per MWh; 3-run average	1 hr minimum sampling time.
4. Stokers/others designed to burn coal/solid fossil fuel	a. CO (or CEMS)	130 ppm by volume on a dry basis corrected to 3-percent oxygen, 3-run average; or (340 ppm by volume on a dry basis corrected to 3-percent oxygen, ^d 30-day rolling average)	0.12 lb per MMBtu of steam output or 1.4 lb per MWh; 3-run average	1 hr minimum sampling time.
5. Fluidized bed units designed to burn coal/solid fossil fuel	a. CO (or CEMS)	130 ppm by volume on a dry basis corrected to 3-percent oxygen, 3-run average; or (230 ppm by volume on a dry basis corrected to 3-percent oxygen, ^d 30-day rolling average)	0.11 lb per MMBtu of steam output or 1.4 lb per MWh; 3-run average	1 hr minimum sampling time.
6. Fluidized bed units with an integrated heat exchanger designed to burn coal/solid fossil fuel	a. CO (or CEMS)	140 ppm by volume on a dry basis corrected to 3-percent oxygen, 3-run average; or (150 ppm by volume on a dry basis corrected to 3-percent oxygen, ^d 30-day rolling average)	1.2E-01 lb per MMBtu of steam output or 1.5 lb per MWh; 3-run average	1 hr minimum sampling time.
7. Stokers/sloped grate/others designed to burn wet biomass fuel	a. CO (or CEMS)	590 ppm by volume on a dry basis corrected to 3-percent oxygen, 3-run average; or (390 ppm by volume on a dry basis corrected to 3-percent oxygen, ^d 30-day rolling average)	6.1E-01 lb per MMBtu of steam output or 6.5 lb per MWh; 3-run average	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	1.3E-02 lb per MMBtu of heat input; or (2.6E-05 lb per MMBtu of heat input)	1.4E-02 lb per MMBtu of steam output or 1.9E-01 lb per MWh; or (2.7E-05 lb	Collect a minimum of 2 dscm per run.

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during startup and shutdown . . .	Or the emissions must not exceed the following alternative output-based limits, except during startup and shutdown . . .	Using this specified sampling
			per MMBtu of steam output or 3.7E-04 lb per MWh)	
8. Stokers/sloped grate/others designed to burn kiln-dried biomass fuel	a. CO	460 ppm by volume on a dry basis corrected to 3-percent oxygen	4.3E-01 lb per MMBtu of steam output or 5.1 lb per MWh	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	3.0E-02 lb per MMBtu of heat input; or (5.0E-03 lb per MMBtu of heat input)	3.5E-02 lb per MMBtu of steam output or 4.2E-01 lb per MWh; or (5.2E-03 lb per MMBtu of steam output or 7.0E-02 lb per MWh)	Collect a minimum of 2 dscm per run.
9. Fluidized bed units designed to burn biomass/bio-based solids	a. CO (or CEMS)	130 ppm by volume on a dry basis corrected to 3-percent oxygen, 3-run average; or (310 ppm by volume on a dry basis corrected to 3-percent oxygen, ^d 30-day rolling average)	1.3E-01 lb per MMBtu of steam output or 1.5 lb per MWh; 3-run average	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	4.1E-03 lb per MMBtu of heat input; or (8.4E-06 ^a lb per MMBtu of heat input)	5.0E-03 lb per MMBtu of steam output or 5.8E-02 lb per MWh; or (1.1E-05 ^a lb per MMBtu of steam output or 1.2E-04 ^a lb per MWh)	Collect a minimum of 3 dscm per run.
10. Suspension burners designed to burn biomass/bio-based solids	a. CO (or CEMS)	220 ppm by volume on a dry basis corrected to 3-percent oxygen, 3-run average; or (2,000 ppm by volume on a dry basis corrected to 3-percent oxygen, ^d 10-day rolling average)	0.18 lb per MMBtu of steam output or 2.5 lb per MWh; 3-run average	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	3.0E-02 lb per MMBtu of heat input; or (8.0E-03 lb per MMBtu of heat input)	3.1E-02 lb per MMBtu of steam output or 4.2E-01 lb per MWh; or (8.1E-03 lb per MMBtu of steam output or 1.2E-01 lb per MWh)	Collect a minimum of 2 dscm per run.
11. Dutch Ovens/Pile burners designed to burn biomass/bio-based solids	a. CO (or CEMS)	330 ppm by volume on a dry basis corrected to 3-percent oxygen, 3-run average; or (520 ppm by volume on a dry basis	3.5E-01 lb per MMBtu of steam output or 3.6 lb per MWh; 3-run average	1 hr minimum sampling time.

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during startup and shutdown . . .	Or the emissions must not exceed the following alternative output-based limits, except during startup and shutdown . . .	Using this specified sampling
		corrected to 3-percent oxygen, ^d 10-day rolling average)		
	b. Filterable PM (or TSM)	2.5E-03 lb per MMBtu of heat input; or (3.9E-05 lb per MMBtu of heat input)	3.4E-03 lb per MMBtu of steam output or 3.5E-02 lb per MWh; or (5.2E-05 lb per MMBtu of steam output or 5.5E-04 lb per MWh)	Collect a minimum of 3 dscm per run.
12. Fuel cell units designed to burn biomass/bio-based solids	a. CO	910 ppm by volume on a dry basis corrected to 3-percent oxygen	1.1 lb per MMBtu of steam output or 1.0E+01 lb per MWh	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	1.1E-02 lb per MMBtu of heat input; or (2.9E-05 lb per MMBtu of heat input)	2.0E-02 lb per MMBtu of steam output or 1.6E-01 lb per MWh; or (5.1E-05 lb per MMBtu of steam output or 4.1E-04 lb per MWh)	Collect a minimum of 2 dscm per run.
13. Hybrid suspension grate boiler designed to burn biomass/bio-based solids	a. CO (or CEMS)	180 ppm by volume on a dry basis corrected to 3-percent oxygen, 3-run average; or (900 ppm by volume on a dry basis corrected to 3-percent oxygen ^d , 30-day rolling average)	0.22 lb per MMBtu of steam output or 2.0 lb per MWh; 3-run average	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	2.6E-02 lb per MMBtu of heat input; or (4.4E-04 lb per MMBtu of heat input)	3.3E-02 lb per MMBtu of steam output or 3.7E-01 lb per MWh; or (5.5E-04 lb per MMBtu of steam output or 6.2E-03 lb per MWh)	Collect a minimum of 3 dscm per run.
14. Units designed to burn liquid fuel	a. HCl	1.5E-04 ^a lb per MMBtu of heat input	1.7E-04 ^a lb per MMBtu of steam output or 2.1E-03 ^a lb per MWh	For M26A: Collect a minimum of 2 dscm per run; for M26, collect a minimum of 240 liters per run.
	b. Mercury	4.8E-07 ^a lb per MMBtu of heat input	5.3E-07 ^a lb per MMBtu of steam output or 6.7E-06 ^a lb per MWh	For M29, collect a minimum of 4 dscm per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784 ^b collect a minimum of 4 dscm.
15. Units designed to	a. CO	130 ppm by volume on a dry basis corrected to 3-percent	0.13 lb per MMBtu of steam output or 1.4 lb per	1 hr minimum sampling time.

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during startup and shutdown . . .	Or the emissions must not exceed the following alternative output-based limits, except during startup and shutdown . . .	Using this specified sampling
burn heavy liquid fuel		oxygen, 3-run average	MWh; 3-run average	
	b. Filterable PM (or TSM)	1.9E-03 lb per MMBtu of heat input; or (6.1E-06 ^a lb per MMBtu of heat input)	2.1E-03 lb per MMBtu of steam output or 2.7E-02 lb per MWh; or (6.7E-6 ^a lb per MMBtu of steam output or 8.5E-5 ^a lb per MWh)	Collect a minimum of 3 dscm per run.
16. Units designed to burn light liquid fuel	a. CO	130 ppm by volume on a dry basis corrected to 3-percent oxygen	0.13 lb per MMBtu of steam output or 1.4 lb per MWh	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	1.1E-03 ^a lb per MMBtu of heat input; or (2.9E-05 lb per MMBtu of heat input)	1.2E-03 ^a lb per MMBtu of steam output or 1.6E-02 ^a lb per MWh; or (3.2E-05 lb per MMBtu of steam output or 4.0E-04 lb per MWh)	Collect a minimum of 3 dscm per run.
17. Units designed to burn liquid fuel that are non-continental units	a. CO	130 ppm by volume on a dry basis corrected to 3-percent oxygen, 3-run average based on stack test	0.13 lb per MMBtu of steam output or 1.4 lb per MWh; 3-run average	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	2.3E-02 lb per MMBtu of heat input; or (8.6E-04 lb per MMBtu of heat input)	2.5E-02 lb per MMBtu of steam output or 3.2E-01 lb per MWh; or (9.4E-04 lb per MMBtu of steam output or 1.2E-02 lb per MWh)	Collect a minimum of 4 dscm per run.
18. Units designed to burn gas 2 (other) gases	a. CO	130 ppm by volume on a dry basis corrected to 3-percent oxygen	0.16 lb per MMBtu of steam output or 1.0 lb per MWh	1 hr minimum sampling time.
	b. HCl	1.7E-03 lb per MMBtu of heat input	2.9E-03 lb per MMBtu of steam output or 1.8E-02 lb per MWh	For M26A, collect a minimum of 2 dscm per run; for M26, collect a minimum of 240 liters per run.
	c. Mercury	7.9E-06 lb per MMBtu of heat input	1.4E-05 lb per MMBtu of steam output or 8.3E-05 lb per MWh	For M29, collect a minimum of 3 dscm per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784 ^b collect a minimum of 3 dscm.
	d. Filterable	7.3E-03 lb per MMBtu of heat	1.3E-02 lb per MMBtu of	Collect a minimum of 3 dscm

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during startup and shutdown . . .	Or the emissions must not exceed the following alternative output-based limits, except during startup and shutdown . . .	Using this specified sampling
	PM (or TSM)	input; or (2.1E-04 lb per MMBtu of heat input)	steam output or 7.6E-02 lb per MWh; or (3.5E-04 lb per MMBtu of steam output or 2.2E-03 lb per MWh)	per run.

^a If you are conducting stack tests to demonstrate compliance and your performance tests for this pollutant for at least 2 consecutive years show that your emissions are at or below this limit, you can skip testing according to § 63.7515 if all of the other provisions of § 63.7515 are met. For all other pollutants that do not contain a footnote “a”, your performance tests for this pollutant for at least 2 consecutive years must show that your emissions are at or below 75 percent of this limit in order to qualify for skip testing.

^b Incorporated by reference, see § 63.14.

^c If your affected source is a new or reconstructed affected source that commenced construction or reconstruction after June 4, 2010, and before April 1, 2013, you may comply with the emission limits in Table 11, 12, or 13 to this subpart until January 31, 2016. On and after January 31, 2016, but before October 6, 2025 you may comply with the emission limits in Table 14 to this subpart. On and after October 6, 2025 you must comply with the emission limits in this Table 1.

^d An owner or operator may determine compliance with the carbon monoxide emissions limit using CO₂ as a diluent correction in place of oxygen as described in § 63.7525(a)(1). EPA Method 19 F-factors in 40 CFR part 60, appendix A-7, and EPA Method 19 equations in 40 CFR part 60, appendix A-7, must be used to generate the appropriate CO₂ correction percentage for the fuel type burned in the unit and must also take into account that the 3-percent oxygen correction is to be done on a dry basis. The methodology must account for any CO₂ being added to, or removed from, the emissions gas stream as a result of limestone injection, scrubber media, etc. This methodology must be detailed in the site-specific monitoring plan developed according to § 63.7505(d).

Table 2 to Subpart DDDDD of Part 63 - Emission Limits for Existing Boilers and Process Heaters ^d

As stated in § 63.7500, you must comply with the following applicable emission limits:

[Units with heat input capacity of 10 million Btu per hour or greater]

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during startup and shutdown . . .	The emissions must not exceed the following alternative output-based limits, except during startup and shutdown . . .	Using this specified sampling volume or test run duration . . .
1. Units in all subcategories designed to burn solid fuel	a. HCl	2.0E-02 lb per MMBtu of heat input	2.3E-02 lb per MMBtu of steam output or 0.26 lb per MWh	For M26A, collect a minimum of 1 dscm per run; for M26, collect a minimum of 120 liters per run.

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during startup and shutdown . . .	The emissions must not exceed the following alternative output-based limits, except during startup and shutdown . . .	Using this specified sampling volume or test run duration . . .
	b. Mercury	5.4E-06 lb per MMBtu of heat input	6.2E-06 lb per MMBtu of steam output or 6.9E-05 lb per MWh	For M29, collect a minimum of 3 dscm per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784 ^b collect a minimum of 3 dscm.
2. Units design to burn coal/solid fossil fuel	a. Filterable PM (or TSM)	3.9E-02 lb per MMBtu of heat input; or (5.3E-05 lb per MMBtu of heat input)	4.1E-02 lb per MMBtu of steam output or 4.8E-01 lb per MWh; or (5.6E-05 lb per MMBtu of steam output or 6.5E-04 lb per MWh)	Collect a minimum of 2 dscm per run.
3. Pulverized coal boilers designed to burn coal/solid fossil fuel	a. CO (or CEMS)	130 ppm by volume on a dry basis corrected to 3-percent oxygen, 3-run average; or (320 ppm by volume on a dry basis corrected to 3-percent oxygen, ^c 30-day rolling average)	0.11 lb per MMBtu of steam output or 1.4 lb per MWh; 3-run average	1 hr minimum sampling time.
4. Stokers/others designed to burn coal/solid fossil fuel	a. CO (or CEMS)	150 ppm by volume on a dry basis corrected to 3-percent oxygen, 3-run average; or (340 ppm by volume on a dry basis corrected to 3-percent oxygen, ^c 30-day rolling average)	0.14 lb per MMBtu of steam output or 1.6 lb per MWh; 3-run average	1 hr minimum sampling time.
5. Fluidized bed units designed to burn coal/solid fossil fuel	a. CO (or CEMS)	130 ppm by volume on a dry basis corrected to 3-percent oxygen, 3-run average; or (230 ppm by volume on a dry basis corrected to 3-percent oxygen, ^c 30-day rolling average)	0.12 lb per MMBtu of steam output or 1.4 lb per MWh; 3-run average	1 hr minimum sampling time.
6. Fluidized bed units with an integrated heat exchanger designed to burn coal/solid fossil fuel	a. CO (or CEMS)	140 ppm by volume on a dry basis corrected to 3-percent oxygen, 3-run average; or (150 ppm by volume on a dry basis corrected to 3-percent oxygen, ^c 30-day rolling average)	1.3E-01 lb per MMBtu of steam output or 1.5 lb per MWh; 3-run average	1 hr minimum sampling time.
7. Stokers/sloped grate/others designed to burn wet biomass fuel	a. CO (or CEMS)	1,100 ppm by volume on a dry basis corrected to 3-percent oxygen, 3-run average; or (720 ppm by volume on a dry basis corrected to 3-percent oxygen, ^c 30-day rolling average)	1.1 lb per MMBtu of steam output or 13 lb per MWh; 3-run average	1 hr minimum sampling time.

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during startup and shutdown . . .	The emissions must not exceed the following alternative output-based limits, except during startup and shutdown . . .	Using this specified sampling volume or test run duration . . .
	b. Filterable PM (or TSM)	3.4E-02 lb per MMBtu of heat input; or (2.0E-04 lb per MMBtu of heat input)	4.0E-02 lb per MMBtu of steam output or 4.8E-01 lb per MWh; or (2.4E-04 lb per MMBtu of steam output or 2.8E-03 lb per MWh)	Collect a minimum of 2 dscm per run.
8. Stokers/sloped grate/others designed to burn kiln-dried biomass fuel	a. CO	460 ppm by volume on a dry basis corrected to 3-percent oxygen	4.2E-01 lb per MMBtu of steam output or 5.1 lb per MWh	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	3.2E-01 lb per MMBtu of heat input; or (5.0E-03 lb per MMBtu of heat input)	3.7E-01 lb per MMBtu of steam output or 4.5 lb per MWh; or (5.9E-03 lb per MMBtu of steam output or 7.0E-02 lb per MWh)	Collect a minimum of 1 dscm per run.
9. Fluidized bed units designed to burn biomass/bio-based solid	a. CO (or CEMS)	210 ppm by volume on a dry basis corrected to 3-percent oxygen, 3-run average; or (310 ppm by volume on a dry basis corrected to 3-percent oxygen, ^c 30-day rolling average)	2.1E-01 lb per MMBtu of steam output or 2.3 lb per MWh; 3-run average	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	7.4E-03 lb per MMBtu of heat input; or (6.4E-05 lb per MMBtu of heat input)	9.2E-03 lb per MMBtu of steam output or 0.11 lb per MWh; or (8.0E-05 lb per MMBtu of steam output or 9.0E-04 lb per MWh)	Collect a minimum of 1 dscm per run.
10. Suspension burners designed to burn biomass/bio-based solid	a. CO (or CEMS)	2,400 ppm by volume on a dry basis corrected to 3-percent oxygen, 3-run average; or (2,000 ppm by volume on a dry basis corrected to 3-percent oxygen, ^c 10-day rolling average)	1.9 lb per MMBtu of steam output or 27 lb per MWh; 3-run average	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	4.1E-02 lb per MMBtu of heat input; or (8.0E-03 lb per MMBtu of heat input)	4.2E-02 lb per MMBtu of steam output or 5.8E-01 lb per MWh; or (8.1E-03 lb per MMBtu of steam output or 0.12 lb per MWh)	Collect a minimum of 2 dscm per run.
11. Dutch Ovens/Pile burners designed to burn	a. CO (or CEMS)	770 ppm by volume on a dry basis corrected to 3-percent	8.4E-01 lb per MMBtu of steam output or 8.4 lb per	1 hr minimum sampling time.

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during startup and shutdown . . .	The emissions must not exceed the following alternative output-based limits, except during startup and shutdown . . .	Using this specified sampling volume or test run duration . . .
biomass/bio-based solid		oxygen, 3-run average; or (520 ppm by volume on a dry basis corrected to 3-percent oxygen, ^c 10-day rolling average)	MWh; 3-run average	
	b. Filterable PM (or TSM)	1.8E-01 lb per MMBtu of heat input; or (2.0E-03 lb per MMBtu of heat input)	2.5E-01 lb per MMBtu of steam output or 2.6 lb per MWh; or (2.8E-03 lb per MMBtu of steam output or 2.8E-02 lb per MWh)	Collect a minimum of 1 dscm per run.
12. Fuel cell units designed to burn biomass/bio-based solid	a. CO	1,100 ppm by volume on a dry basis corrected to 3-percent oxygen	2.4 lb per MMBtu of steam output or 12 lb per MWh	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	2.0E-02 lb per MMBtu of heat input; or (5.8E-03 lb per MMBtu of heat input)	5.5E-02 lb per MMBtu of steam output or 2.8E-01 lb per MWh; or (1.6E-02 lb per MMBtu of steam output or 8.1E-02 lb per MWh)	Collect a minimum of 2 dscm per run.
13. Hybrid suspension grate units designed to burn biomass/bio-based solid	a. CO (or CEMS)	3,500 ppm by volume on a dry basis corrected to 3-percent oxygen, 3-run average; or (900 ppm by volume on a dry basis corrected to 3-percent oxygen, ^c 30-day rolling average)	3.5 lb per MMBtu of steam output or 39 lb per MWh; 3-run average	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	4.4E-01 lb per MMBtu of heat input; or (4.5E-04 lb per MMBtu of heat input)	5.5E-01 lb per MMBtu of steam output or 6.2 lb per MWh; or (5.7E-04 lb per MMBtu of steam output or 6.3E-03 lb per MWh)	Collect a minimum of 1 dscm per run.
14. Units designed to burn liquid fuel	a. HCl	1.1E-03 lb per MMBtu of heat input	1.4E-03 lb per MMBtu of steam output or 1.6E-02 lb per MWh	For M26A, collect a minimum of 2 dscm per run; for M26, collect a minimum of 240 liters per run.
	b. Mercury	7.3E-07 lb per MMBtu of heat input	8.8E-07 lb per MMBtu of steam output or 1.1E-05 lb per MWh	For M29, collect a minimum of 3 dscm per run; for M30A or M30B collect a minimum sample as specified in the method, for ASTM D6784 ^b collect a minimum of 2 dscm.
15. Units designed to	a. CO	130 ppm by volume on a dry basis corrected to 3-percent	0.13 lb per MMBtu of steam output or 1.4 lb per	1 hr minimum sampling time.

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during startup and shutdown . . .	The emissions must not exceed the following alternative output-based limits, except during startup and shutdown . . .	Using this specified sampling volume or test run duration . . .
burn heavy liquid fuel		oxygen, 3-run average	MWh; 3-run average	
	b. Filterable PM (or TSM)	5.9E-02 lb per MMBtu of heat input; or (2.0E-04 lb per MMBtu of heat input)	7.2E-02 lb per MMBtu of steam output or 8.2E-01 lb per MWh; or (2.5E-04 lb per MMBtu of steam output or 2.8E-03 lb per MWh)	Collect a minimum of 1 dscm per run.
16. Units designed to burn light liquid fuel	a. CO	130 ppm by volume on a dry basis corrected to 3-percent oxygen	0.13 lb per MMBtu of steam output or 1.4 lb per MWh	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	7.9E-03 lb per MMBtu of heat input; or (6.2E-05 lb per MMBtu of heat input)	9.6E-03 lb per MMBtu of steam output or 1.1E-01 lb per MWh; or (7.5E-05 lb per MMBtu of steam output or 8.6E-04 lb per MWh)	Collect a minimum of 3 dscm per run.
17. Units designed to burn liquid fuel that are non-continental units	a. CO	130 ppm by volume on a dry basis corrected to 3-percent oxygen, 3-run average based on stack test	0.13 lb per MMBtu of steam output or 1.4 lb per MWh; 3-run average	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	2.2E-01 lb per MMBtu of heat input; or (8.6E-04 lb per MMBtu of heat input)	2.7E-01 lb per MMBtu of steam output or 3.1 lb per MWh; or (1.1E-03 lb per MMBtu of steam output or 1.2E-02 lb per MWh)	Collect a minimum of 2 dscm per run.
18. Units designed to burn gas 2 (other) gases	a. CO	130 ppm by volume on a dry basis corrected to 3-percent oxygen	0.16 lb per MMBtu of steam output or 1.0 lb per MWh	1 hr minimum sampling time.
	b. HCl	1.7E-03 lb per MMBtu of heat input	2.9E-03 lb per MMBtu of steam output or 1.8E-02 lb per MWh	For M26A, collect a minimum of 2 dscm per run; for M26, collect a minimum of 240 liters per run.
	c. Mercury	7.9E-06 lb per MMBtu of heat input	1.4E-05 lb per MMBtu of steam output or 8.3E-05 lb per MWh	For M29, collect a minimum of 3 dscm per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784 ^b collect a minimum of 2 dscm.
	d. Filterable PM (or	7.3E-03 lb per MMBtu of heat input or (2.1E-04 lb per MMBtu	1.3E-02 lb per MMBtu of steam output or 7.6E-02 lb	Collect a minimum of 3 dscm

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during startup and shutdown . . .	The emissions must not exceed the following alternative output-based limits, except during startup and shutdown . . .	Using this specified sampling volume or test run duration . . .
	TSM)	of heat input)	per MWh; or (3.5E-04 lb per MMBtu of steam output or 2.2E-03 lb per MWh)	per run.

^a If you are conducting stack tests to demonstrate compliance and your performance tests for this pollutant for at least 2 consecutive years show that your emissions are at or below this limit, you can skip testing according to § 63.7515 if all of the other provisions of § 63.7515 are met. For all other pollutants that do not contain a footnote a, your performance tests for this pollutant for at least 2 consecutive years must show that your emissions are at or below 75 percent of this limit in order to qualify for skip testing.

^b Incorporated by reference, see § 63.14.

^c An owner or operator may determine compliance with the carbon monoxide emissions limit be determined using CO₂ as a diluent correction in place of oxygen as described in § 63.7525(a)(1). EPA Method 19 F-factors in 40 CFR part 60, appendix A-7, and EPA Method 19 equations in 40 CFR part 60, appendix A-7, must be used to generate the appropriate CO₂ correction percentage for the fuel type burned in the unit and must also take into account that the 3-percent oxygen correction is to be done on a dry basis. The methodology must account for any CO₂ being added to, or removed from, the emissions gas stream as a result of limestone injection, scrubber media, etc. This methodology must be detailed in the site-specific monitoring plan developed according to § 63.7505(d).

^d Before October 6, 2025 you may comply with the emission limits in Table 15 to this subpart. On and after October 6, 2025], you must comply with the emission limits in this Table 2.

Table 3 to Subpart DDDDD of Part 63 - Work Practice Standards

As stated in § 63.7500, you must comply with the following applicable work practice standards:

If your unit is . . .	You must meet the following . . .
1. A new or existing boiler or process heater with a continuous oxygen trim system that maintains an optimum air to fuel ratio, or a heat input capacity of less than or equal to 5 million Btu per hour in any of the following subcategories: unit designed to burn gas 1; unit designed to burn gas 2 (other); or unit designed to burn light liquid, or a limited use boiler or process heater	Conduct a tune-up of the boiler or process heater every 5 years as specified in § 63.7540.
2. A new or existing boiler or process heater without a continuous oxygen trim system and with heat input capacity of less than 10 million Btu per hour in the unit designed to burn heavy liquid or unit designed to burn solid fuel subcategories; or a new or existing boiler or process heater with heat input capacity of less than 10 million Btu per hour, but greater than 5 million Btu per hour, in any of the following subcategories: unit designed to burn gas 1; unit designed to burn gas 2 (other); or	Conduct a tune-up of the boiler or process heater biennially as specified in § 63.7540.

If your unit is . . .	You must meet the following . . .
unit designed to burn light liquid	
3. A new or existing boiler or process heater without a continuous oxygen trim system and with heat input capacity of 10 million Btu per hour or greater	Conduct a tune-up of the boiler or process heater annually as specified in § 63.7540. Units in either the Gas 1 or Metal Process Furnace subcategories will conduct this tune-up as a work practice for all regulated emissions under this subpart. Units in all other subcategories will conduct this tune-up as a work practice for dioxins/furans. Must have a one-time energy assessment performed by a qualified energy assessor. An energy assessment completed on or after January 1, 2008, that meets or is amended to meet the energy assessment requirements in this table, satisfies the energy assessment requirement. A facility that operated under an energy management program developed according to the ENERGY STAR guidelines for energy management or compatible with ISO 50001 for at least one year between January 1, 2008 and the compliance date specified in § 63.7495 that includes the affected units also satisfies the energy assessment requirement. The energy assessment must include the following with extent of the evaluation for items a. to e. appropriate for the on-site technical hours listed in § 63.7575: a. A visual inspection of the boiler or process heater system. b. An evaluation of operating characteristics of the boiler or process heater systems, specifications of energy using systems, operating and maintenance procedures, and unusual operating constraints. c. An inventory of major energy use systems consuming energy from affected boilers and process heaters and which are under the control of the boiler/process heater owner/operator. d. A review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage. e. A review of the facility's energy management program and provide recommendations for improvements consistent with the definition of energy management program, if identified. f. A list of cost-effective energy conservation measures that are within the facility's control. g. A list of the energy savings potential of the energy conservation measures identified. h. A comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments.
4. An existing boiler or process heater located at a major source facility, not including limited use units	
5. An existing or new boiler or process heater subject to emission limits in Table 1 or 2 or 11 through 15 to this subpart	a. You must operate all CMS during startup. b. For startup of a boiler or process heater, you must use one or a combination of the following clean fuels: natural gas, synthetic

If your unit is . . .	You must meet the following . . .
during startup	natural gas, propane, other Gas 1 fuels, distillate oil, syngas, ultra-low sulfur diesel, fuel oil-soaked rags, kerosene, hydrogen, paper, cardboard, refinery gas, liquefied petroleum gas, clean dry biomass, and any fuels meeting the appropriate HCl, mercury and TSM emission standards by fuel analysis. c. You have the option of complying using either of the following work practice standards. (1) If you choose to comply using paragraph (1) of the definition of “startup” in § 63.7575, once you start firing fuels that are not clean fuels you must vent emissions to the main stack(s) and engage all of the applicable control devices except limestone injection in fluidized bed combustion (FBC) boilers, dry scrubber, fabric filter, and selective catalytic reduction (SCR). You must start your limestone injection in FBC boilers, dry scrubber, fabric filter, and SCR systems as expeditiously as possible. Startup ends when steam or heat is supplied for any purpose, OR (2) If you choose to comply using paragraph (2) of the definition of “startup” in § 63.7575, once you start to feed fuels that are not clean fuels, you must vent emissions to the main stack(s) and engage all of the applicable control devices so as to comply with the emission limits within 4 hours of start of supplying useful thermal energy. You must engage and operate PM control within one hour of first feeding fuels that are not clean fuels^a. You must start all applicable control devices as expeditiously as possible, but, in any case, when necessary to comply with other standards applicable to the source by a permit limit or a rule other than this subpart that require operation of the control devices. You must develop and implement a written startup and shutdown plan, as specified in § 63.7505(e). d. You must comply with all applicable emission limits at all times except during startup and shutdown periods at which time you must meet this work practice. You must collect monitoring data during periods of startup, as specified in § 63.7535(b). You must keep records during periods of startup. You must provide reports concerning activities and periods of startup, as specified in § 63.7555. You must operate all CMS during shutdown. While firing fuels that are not clean fuels during shutdown, you must vent emissions to the main stack(s) and operate all applicable control devices, except limestone injection in FBC boilers, dry scrubber, fabric filter, and SCR but, in any case, when necessary to comply with other standards applicable to the source that require operation of the control device. If, in addition to the fuel used prior to initiation of shutdown, another fuel must be used to support the shutdown process, that additional fuel must be one or a combination of the following clean fuels: Natural gas, synthetic natural gas, propane, other Gas 1 fuels, distillate oil, syngas, ultra-low sulfur diesel,
6. An existing or new boiler or process heater subject to emission limits in Table 1 or 2 or Tables 11 through 15 to this subpart during shutdown	

If your unit is . . .	You must meet the following . . .
	refinery gas, and liquefied petroleum gas. You must comply with all applicable emissions limits at all times except for startup or shutdown periods conforming with this work practice. You must collect monitoring data during periods of shutdown, as specified in § 63.7535(b). You must keep records during periods of shutdown. You must provide reports concerning activities and periods of shutdown, as specified in § 63.7555.

^a As specified in § 63.7555(d)(13), the source may request an alternative timeframe with the PM controls requirement to the permitting authority (state, local, or tribal agency) that has been delegated authority for this subpart by EPA. The source must provide evidence that (1) it is unable to safely engage and operate the PM control(s) to meet the “fuel firing + 1 hour” requirement and (2) the PM control device is appropriately designed and sized to meet the filterable PM emission limit. It is acknowledged that there may be another control device that has been installed other than ESP that provides additional PM control (e.g., scrubber).

Table 4 to Subpart DDDDD of Part 63 - Operating Limits for Boilers and Process Heaters

As stated in § 63.7500, you must comply with the applicable operating limits:

Table 4 to Subpart DDDDD of Part 63 - Operating Limits for Boilers and Process Heaters

When complying with a numerical emission limit under Table 1, 2, 11, 12, 13, 14, or 15 of this subpart using . . .	You must meet these operating limits. . .
1. Wet PM scrubber control on a boiler or process heater not using a PM CPMS	Maintain the 30-day rolling average pressure drop and the 30-day rolling average liquid flow rate at or above the lowest one-hour average pressure drop and the lowest one-hour average liquid flow rate, respectively, measured during the performance test demonstrating compliance with the PM emission limitation according to § 63.7530(b) and Table 7 to this subpart.
2. Wet acid gas (HCl) scrubber ^a control on a boiler or process heater not using a HCl CEMS	Maintain the 30-day rolling average effluent pH at or above the lowest one-hour average pH and the 30-day rolling average liquid flow rate at or above the lowest one-hour average liquid flow rate measured during the performance test demonstrating compliance with the HCl emission limitation according to § 63.7530(b) and Table 7 to this subpart.
3. Fabric filter control on a boiler or process heater not using a PM CPMS	a. Maintain opacity to less than or equal to 10 percent opacity or the highest hourly average opacity reading measured during the performance test run demonstrating compliance with the PM (or TSM) emission limitation (daily block average); or b. Install and operate a bag leak detection system according to § 63.7525 and operate the fabric filter such that the bag leak detection system alert is not activated more than 5 percent of the operating time during each 6-month period.
4. Electrostatic precipitator control on a boiler or process heater not using a PM CPMS	a. This option is for boilers and process heaters that operate dry control systems (<i>i.e.</i> , an ESP without a wet scrubber). Existing and new boilers and process heaters must maintain opacity to less than or equal to 10 percent opacity or the highest hourly average opacity reading measured during the performance test run demonstrating compliance with the PM (or TSM) emission limitation (daily block average). b. This option is only for boilers and process heaters not subject to PM CPMS or continuous compliance with an opacity limit (<i>i.e.</i> , dry ESP). Maintain the 30-day rolling average total

When complying with a numerical emission limit under Table 1, 2, 11, 12, 13, 14, or 15 of this subpart using . . .	You must meet these operating limits. . .
	secondary electric power input of the electrostatic precipitator at or above the operating limits established during the performance test according to § 63.7530(b) and Table 7 to this subpart.
5. Dry scrubber or carbon injection control on a boiler or process heater not using a mercury CEMS	Maintain the minimum sorbent or carbon injection rate as defined in § 63.7575 of this subpart.
6. Any other add-on air pollution control type on a boiler or process heater not using a PM CPMS	This option is for boilers and process heaters that operate dry control systems. Existing and new boilers and process heaters must maintain opacity to less than or equal to 10 percent opacity or the highest hourly average opacity reading measured during the performance test run demonstrating compliance with the PM (or TSM) emission limitation (daily block average).
7. Performance testing	For boilers and process heaters that demonstrate compliance with a performance test, maintain the 30-day rolling average operating load of each unit such that it does not exceed 110 percent of the highest hourly average operating load recorded during the performance test.
8. Oxygen analyzer system	For boilers and process heaters subject to a CO emission limit that demonstrate compliance with an O ₂ analyzer system as specified in § 63.7525(a), maintain the 30-day rolling average oxygen content at or above the lowest hourly average oxygen concentration measured during the CO performance test, as specified in Table 8. This requirement does not apply to units that install an oxygen trim system since these units will set the trim system to the level specified in § 63.7525(a).
9. SO ₂ CEMS	For boilers or process heaters subject to an HCl emission limit that demonstrate compliance with an SO ₂ CEMS, maintain the 30-day rolling average SO ₂ emission rate at or below the highest hourly average SO ₂ concentration measured during the HCl performance test, as specified in Table 8.

^a A wet acid gas scrubber is a control device that removes acid gases by contacting the combustion gas with an alkaline slurry or solution. Alkaline reagents include, but not limited to, lime, limestone and sodium.

Table 5 to Subpart DDDDD of Part 63 - Performance Testing Requirements

As stated in § 63.7520, you must comply with the following requirements for performance testing for existing, new or reconstructed affected sources:

To conduct a performance test for the following pollutant . . .	You must. . .	Using, as appropriate . . .
1. Filterable PM	a. Select sampling ports location and the number of traverse points	Method 1 at 40 CFR part 60, appendix A-1 of this chapter.
	b. Determine velocity and volumetric flow-rate of the stack gas	Method 2, 2F, or 2G at 40 CFR part 60, appendix A-1 or A-2 to part 60 of this chapter.
	c. Determine oxygen or carbon dioxide concentration of the	Method 3A or 3B at 40 CFR part 60, appendix A-2 to part 60 of this chapter, or ANSI/ASME PTC 19.10-1981. ^a

To conduct a performance test for the following pollutant . . .	You must. . .	Using, as appropriate . . .
2. TSM	stack gas	
	d. Measure the moisture content of the stack gas	Method 4 at 40 CFR part 60, appendix A-3 of this chapter.
	e. Measure the PM emission concentration	Method 5 or 17 (positive pressure fabric filters must use Method 5D) at 40 CFR part 60, appendix A-3 or A-6 of this chapter.
	f. Convert emissions concentration to lb per MMBtu emission rates	Method 19 F-factor methodology at 40 CFR part 60, appendix A-7 of this chapter.
	a. Select sampling ports location and the number of traverse points	Method 1 at 40 CFR part 60, appendix A-1 of this chapter.
	b. Determine velocity and volumetric flow-rate of the stack gas	Method 2, 2F, or 2G at 40 CFR part 60, appendix A-1 or A-2 of this chapter.
3. Hydrogen chloride	c. Determine oxygen or carbon dioxide concentration of the stack gas	Method 3A or 3B at 40 CFR part 60, appendix A-1 of this chapter, or ANSI/ASME PTC 19.10-1981. ^a
	d. Measure the moisture content of the stack gas	Method 4 at 40 CFR part 60, appendix A-3 of this chapter.
	e. Measure the TSM emission concentration	Method 29 at 40 CFR part 60, appendix A-8 of this chapter
	f. Convert emissions concentration to lb per MMBtu emission rates	Method 19 F-factor methodology at 40 CFR part 60, appendix A-7 of this chapter.
	a. Select sampling ports location and the number of traverse points	Method 1 at 40 CFR part 60, appendix A-1 of this chapter.
	b. Determine velocity and volumetric flow-rate of the stack gas	Method 2, 2F, or 2G at 40 CFR part 60, appendix A-2 of this chapter.
	c. Determine oxygen or carbon dioxide concentration of the stack gas	Method 3A or 3B at 40 CFR part 60, appendix A-2 of this chapter, or ANSI/ASME PTC 19.10-1981. ^a
	d. Measure the moisture content of the stack gas	Method 4 at 40 CFR part 60, appendix A-3 of this chapter.
	e. Measure the hydrogen chloride emission concentration	Method 26 or 26A (M26 or M26A) at 40 CFR part 60, appendix A-8 of this chapter.
	f. Convert emissions	Method 19 F-factor methodology at 40 CFR part 60, appendix A-7 of

To conduct a performance test for the following pollutant . . .	You must. . .	Using, as appropriate . . .
	concentration to lb per MMBtu emission rates	this chapter.
4. Mercury	a. Select sampling ports location and the number of traverse points b. Determine velocity and volumetric flow-rate of the stack gas c. Determine oxygen or carbon dioxide concentration of the stack gas d. Measure the moisture content of the stack gas e. Measure the mercury emission concentration f. Convert emissions concentration to lb per MMBtu emission rates	Method 1 at 40 CFR part 60, appendix A-1 of this chapter. Method 2, 2F, or 2G at 40 CFR part 60, appendix A-1 or A-2 of this chapter. Method 3A or 3B at 40 CFR part 60, appendix A-1 of this chapter, or ANSI/ASME PTC 19.10-1981. ^a Method 4 at 40 CFR part 60, appendix A-3 of this chapter. Method 29, 30A, or 30B (M29, M30A, or M30B) at 40 CFR part 60, appendix A-8 of this chapter or Method 101A at 40 CFR part 61, appendix B of this chapter, or ASTM Method D6784. ^a Method 19 F-factor methodology at 40 CFR part 60, appendix A-7 of this chapter.
5. CO	a. Select the sampling ports location and the number of traverse points b. Determine oxygen concentration of the stack gas c. Measure the moisture content of the stack gas d. Measure the CO emission concentration	Method 1 at 40 CFR part 60, appendix A-1 of this chapter. Method 3A or 3B at 40 CFR part 60, appendix A-3 of this chapter, or ASTM D6522-00 (Reapproved 2005), or ANSI/ASME PTC 19.10-1981. ^a Method 4 at 40 CFR part 60, appendix A-3 of this chapter. Method 10 at 40 CFR part 60, appendix A-4 of this chapter. Use a measurement span value of 2 times the concentration of the applicable emission limit.

^a Incorporated by reference, see § 63.14.

Table 6 to Subpart DDDDD of Part 63 - Fuel Analysis Requirements

As stated in § 63.7521, you must comply with the following requirements for fuel analysis testing for existing, new or reconstructed affected sources. However, equivalent methods (as defined in § 63.7575) may be used in lieu of the prescribed methods at the discretion of the source owner or operator:

To conduct a fuel analysis for the following pollutant . .	You must . . .	Using . . .
1. Mercury	a. Collect fuel samples b. Composite fuel samples c. Prepare composited fuel samples d. Determine heat content of the fuel type e. Determine moisture content of the fuel type f. Measure mercury concentration in fuel sample g. Convert concentration into units of pounds of mercury per MMBtu of heat content	Procedure in § 63.7521(c) or ASTM D5192^a, or ASTM D7430^a, or ASTM D6883^a, or ASTM D2234/D2234M^a (for coal) or EPA 1631 or EPA 1631E or ASTM D6323^a (for solid), or EPA 821-R-01-013 (for liquid or solid), or ASTM D4177^a (for liquid), or ASTM D4057^a (for liquid), or equivalent. Procedure in § 63.7521(d) or equivalent. EPA SW-846-3050B^a (for solid samples), ASTM D2013/D2013M^a (for coal), ASTM D5198^a (for biomass), or EPA 3050^a (for solid fuel), or EPA 821-R-01-013^a (for liquid or solid), or equivalent. ASTM D5865^a (for coal) or ASTM E711^a (for biomass), or ASTM D5864^a for liquids and other solids, or ASTM D240^a or equivalent. ASTM D3173^a, ASTM E871^a, or ASTM D5864^a, or ASTM D240^a, or ASTM D95^a (for liquid fuels), or ASTM D4006^a (for liquid fuels), or equivalent. ASTM D6722^a (for coal), EPA SW-846-7471B^a or EPA 1631 or EPA 1631E^a (for solid samples), or EPA SW-846-7470A^a or EPA SW-846-7471B^a (for liquid samples), or EPA 821-R-01-013^a (for liquid or solid), or equivalent. For fuel mixtures use Equation 8 in § 63.7530.
2. HCl	a. Collect fuel samples b. Composite fuel samples c. Prepare composited fuel samples d. Determine heat content of the fuel type e. Determine moisture content of the fuel type f. Measure chlorine concentration in fuel sample g. Convert concentrations into units of pounds of HCl per MMBtu of heat content	Procedure in § 63.7521(c) or ASTM D5192^a, or ASTM D7430^a, or ASTM D6883^a, or ASTM D2234/D2234M^a (for coal) or ASTM D6323^a (for coal or biomass), ASTM D4177^a (for liquid fuels) or ASTM D4057^a (for liquid fuels), or equivalent. Procedure in § 63.7521(d) or equivalent. EPA SW-846-3050B^a (for solid samples), ASTM D2013/D2013M^a (for coal), or ASTM D5198^a (for biomass), or EPA 3050^a or equivalent. ASTM D5865^a (for coal) or ASTM E711^a (for biomass), ASTM D5864^a, ASTM D240^a or equivalent. ASTM D3173^a or ASTM E871^a, or D5864^a, or ASTM D240^a, or ASTM D95^a (for liquid fuels), or ASTM D4006^a (for liquid fuels), or equivalent. EPA SW-846-9250^a, ASTM D6721^a, ASTM D4208^a (for coal), or EPA SW-846-5050^a or ASTM E776^a (for solid fuel), or EPA SW-846-9056^a or SW-846-9076^a (for solids or liquids) or equivalent. For fuel mixtures use Equation 7 in § 63.7530 and convert from chlorine to HCl by multiplying by 1.028.
3. Mercury Fuel	a. Measure mercury concentration in	Method 30B (M30B) at 40 CFR part 60, appendix A-8 of this chapter or

To conduct a fuel analysis for the following pollutant . . .	You must . . .	Using . . .
Specification for other gas 1 fuels	the fuel sample and convert to units of micrograms per cubic meter, or	ASTM D5954 ^a , ASTM D6350 ^a , ISO 6978-1:2003(E) ^a , or ISO 6978-2:2003(E) ^a , or EPA-1631 ^a or equivalent.
	b. Measure mercury concentration in the exhaust gas when firing only the other gas 1 fuel is fired in the boiler or process heater	Method 29, 30A, or 30B (M29, M30A, or M30B) at 40 CFR part 60, appendix A-8 of this chapter or Method 101A or Method 102 at 40 CFR part 61, appendix B of this chapter, or ASTM Method D6784 ^a or equivalent.
4. TSM	a. Collect fuel samples	Procedure in § 63.7521(c) or ASTM D5192 ^a , or ASTM D7430 ^a , or ASTM D6883 ^a , or ASTM D2234/D2234M ^a (for coal) or ASTM D6323 ^a (for coal or biomass), or ASTM D4177 ^a , (for liquid fuels), or ASTM D4057 ^a (for liquid fuels), or equivalent.
	b. Composite fuel samples	Procedure in § 63.7521(d) or equivalent.
	c. Prepare composited fuel samples	EPA SW-846-3050B ^a (for solid samples), ASTM D2013/D2013M ^a (for coal), ASTM D5198 ^a or TAPPI T266 ^a (for biomass), or EPA 3050 ^a or equivalent.
	d. Determine heat content of the fuel type	ASTM D5865 ^a (for coal) or ASTM E711 ^a (for biomass), or ASTM D5864 ^a for liquids and other solids, or ASTM D240 ^a or equivalent.
	e. Determine moisture content of the fuel type	ASTM D3173 ^a or ASTM E871 ^a , or D5864 ^a , or ASTM D240 ^a , or ASTM D95 ^a (for liquid fuels), or ASTM D4006 ^a (for liquid fuels), or ASTM D4177 ^a (for liquid fuels) or ASTM D4057 ^a (for liquid fuels), or equivalent.
	f. Measure TSM concentration in fuel sample	ASTM D3683 ^a , or ASTM D4606 ^a , or ASTM D6357 ^a or EPA 200.8 ^a or EPA SW-846-6020 ^a , or EPA SW-846-6020A ^a , or EPA SW-846-6010C ^a , EPA 7060 ^a or EPA 7060A ^a (for arsenic only), or EPA SW-846-7740 ^a (for selenium only).
	g. Convert concentrations into units of pounds of TSM per MMBtu of heat content	For fuel mixtures use Equation 9 in § 63.7530.

^a Incorporated by reference, see § 63.14.

Table 7 to Subpart DDDDD of Part 63 - Establishing Operating Limits ^{ab}

As stated in § 63.7520, you must comply with the following requirements for establishing operating limits:

Table 7 to Subpart DDDDD of Part 63 - Establishing Operating Limits ^{ab}

If you have an applicable emission limit for . . .	And your operating limits are based on . . .	You must . . .	Using . . .	According to the following requirements
1. PM, TSM, or mercury	a. Wet scrubber operating	i. Establish a site-specific minimum scrubber pressure	(1) Data from the scrubber pressure	(a) You must collect scrubber pressure drop and liquid flow rate

If you have an applicable emission limit for . . .	And your operating limits are based on . . .	You must . . .	Using . . .	According to the following requirements
	parameters	drop and minimum flow rate operating limit according to § 63.7530(b)	drop and liquid flow rate monitors and the PM, TSM, or mercury performance test	data every 15 minutes during the entire period of the performance tests. (b) Determine the lowest hourly average scrubber pressure drop and liquid flow rate by computing the hourly averages using all of the 15-minute readings taken during each performance test.
	b. Electrostatic precipitator operating parameters (option only for units that operate wet scrubbers)	i. Establish a site-specific minimum total secondary electric power input according to § 63.7530(b)	(1) Data from the voltage and secondary amperage monitors during the PM or mercury performance test	(a) You must collect secondary voltage and secondary amperage for each ESP cell and calculate total secondary electric power input data every 15 minutes during the entire period of the performance tests. (b) Determine the average total secondary electric power input by computing the hourly averages using all of the 15-minute readings taken during each performance test.
	c. Opacity	i. Establish a site-specific maximum opacity level	(1) Data from the opacity monitoring system during the PM performance test	(a) You must collect opacity readings every 15 minutes during the entire period of the performance tests. (b) Determine the average hourly opacity reading by computing the hourly averages using all of the 15-minute readings taken during each performance test. (c) Determine the highest hourly average opacity reading measured during the test run demonstrating compliance with the PM (or TSM) emission limitation.
2. HCl	a. Wet scrubber operating parameters	i. Establish site-specific minimum effluent pH and flow rate operating limits according to § 63.7530(b)	(1) Data from the pH and liquid flow-rate monitors and the HCl performance test	(a) You must collect pH and liquid flow-rate data every 15 minutes during the entire period of the performance tests. (b) Determine the hourly average pH

If you have an applicable emission limit for . . .	And your operating limits are based on . . .	You must . . .	Using . . .	According to the following requirements
3. Mercury	b. Dry scrubber operating parameters	i. Establish a site-specific minimum sorbent injection rate operating limit according to § 63.7530(b). If different acid gas sorbents are used during the HCl performance test, the average value for each sorbent becomes the site-specific operating limit for that sorbent	(1) Data from the sorbent injection rate monitors and HCl or mercury performance test	and liquid flow rate by computing the hourly averages using all of the 15-minute readings taken during each performance test. (a) You must collect sorbent injection rate data every 15 minutes during the entire period of the performance tests. (b) Determine the hourly average sorbent injection rate by computing the hourly averages using all of the 15-minute readings taken during each performance test. (c) Determine the lowest hourly average of the three test run averages established during the performance test as your operating limit. When your unit operates at lower loads, multiply your sorbent injection rate by the load fraction, as defined in § 63.7575, to determine the required injection rate.
	c. Alternative Maximum SO ₂ emission rate	i. Establish a site-specific maximum SO ₂ emission rate operating limit according to § 63.7530(b)	(1) Data from SO ₂ CEMS and the HCl performance test	(a) You must collect the SO₂ emissions data according to § 63.7525(m) during the most recent HCl performance tests. (b) The maximum SO₂ emission rate is equal to the highest hourly average SO₂ emission rate measured during the most recent HCl performance tests.
	a. Activated carbon injection	i. Establish a site-specific minimum activated carbon injection rate operating limit according to § 63.7530(b)	(1) Data from the activated carbon rate monitors and mercury performance test	(a) You must collect activated carbon injection rate data every 15 minutes during the entire period of the performance tests. (b) Determine the hourly average

If you have an applicable emission limit for . . .	And your operating limits are based on . . .	You must . . .	Using . . .	According to the following requirements
				activated carbon injection rate by computing the hourly averages using all of the 15-minute readings taken during each performance test. (c) Determine the lowest hourly average established during the performance test as your operating limit. When your unit operates at lower loads, multiply your activated carbon injection rate by the load fraction, as defined in § 63.7575, to determine the required injection rate.
4. Carbon monoxide for which compliance is demonstrated by a performance test	a. Oxygen	i. Establish a unit-specific limit for minimum oxygen level according to § 63.7530(b)	(1) Data from the oxygen analyzer system specified in § 63.7525(a)	(a) You must collect oxygen data every 15 minutes during the entire period of the performance tests. (b) Determine the hourly average oxygen concentration by computing the hourly averages using all of the 15-minute readings taken during each performance test. (c) Determine the lowest hourly average established during the performance test as your minimum operating limit.
5. Any pollutant for which compliance is demonstrated by a performance test	a. Boiler or process heater operating load	i. Establish a unit specific limit for maximum operating load according to § 63.7520(c)	(1) Data from the operating load monitors or from steam generation monitors	(a) You must collect operating load or steam generation data every 15 minutes during the entire period of the performance test. (b) Determine the average operating load by computing the hourly averages using all of the 15-minute readings taken during each performance test. (c) Determine the highest hourly average of the three test run averages during the performance test, and multiply this by 1.1 (110 percent) as your operating limit.

^a Operating limits must be confirmed or reestablished during performance tests.

^b If you conduct multiple performance tests, you must set the minimum liquid flow rate and pressure drop operating limits at the higher of the minimum values established during the performance tests. For a minimum oxygen level, if you conduct multiple performance tests, you must set the minimum oxygen level at the lower of the minimum values established during the performance tests. For maximum operating load, if you conduct multiple performance tests, you must set the maximum operating load at the lower of the maximum values established during the performance tests.

Table 8 to Subpart DDDDD of Part 63 - Demonstrating Continuous Compliance

As stated in § 63.7540, you must show continuous compliance with the emission limitations for each boiler or process heater according to the following:

If you must meet the following operating limits or work practice standards . . .	You must demonstrate continuous compliance by . . .
1. Opacity	a. Collecting the opacity monitoring system data according to § 63.7525(c) and § 63.7535; and b. Reducing the opacity monitoring data to 6-minute averages; and c. Maintaining daily block average opacity to less than or equal to 10 percent or the highest hourly average opacity reading measured during the performance test run demonstrating compliance with the PM (or TSM) emission limitation.
2. PM CPMS	a. Collecting the PM CPMS output data according to § 63.7525; b. Reducing the data to 30-day rolling averages; and c. Maintaining the 30-day rolling average PM CPMS output data to less than the operating limit established during the performance test according to § 63.7530(b)(4).
3. Fabric Filter Bag Leak Detection Operation	Installing and operating a bag leak detection system according to § 63.7525 and operating the fabric filter such that the requirements in § 63.7540(a)(7) are met.
4. Wet Scrubber Pressure Drop and Liquid Flow-rate	a. Collecting the pressure drop and liquid flow rate monitoring system data according to §§ 63.7525 and 63.7535; and b. Reducing the data to 30-day rolling averages; and c. Maintaining the 30-day rolling average pressure drop and liquid flow-rate at or above the operating limits established during the performance test according to § 63.7530(b).
5. Wet Scrubber pH	a. Collecting the pH monitoring system data according to §§ 63.7525 and 63.7535; and b. Reducing the data to 30-day rolling averages; and c. Maintaining the 30-day rolling average pH at or above the operating limit established during the performance test according to § 63.7530(b).
6. Dry Scrubber Sorbent or Carbon Injection Rate	a. Collecting the sorbent or carbon injection rate monitoring system data for the dry scrubber according to §§ 63.7525 and 63.7535; and b. Reducing the data to 30-day rolling averages; and c. Maintaining the 30-day rolling average sorbent or carbon injection rate at or above the

If you must meet the following operating limits or work practice standards . . .	You must demonstrate continuous compliance by . . .
	minimum sorbent or carbon injection rate as defined in § 63.7575.
7. Electrostatic Precipitator Total Secondary Electric Power Input	a. Collecting the total secondary electric power input monitoring system data for the electrostatic precipitator according to §§ 63.7525 and 63.7535; and b. Reducing the data to 30-day rolling averages; and c. Maintaining the 30-day rolling average total secondary electric power input at or above the operating limits established during the performance test according to § 63.7530(b).
8. Emission limits using fuel analysis	a. Conduct monthly fuel analysis for HCl or mercury or TSM according to Table 6 to this subpart; and b. Reduce the data to 12-month rolling averages; and c. Maintain the 12-month rolling average at or below the applicable emission limit for HCl or mercury or TSM in Tables 1 and 2 or 11 through 15 to this subpart. d. Calculate the HCl, mercury, and/or TSM emission rate from the boiler or process heater in units of lb/MMBtu using Equation 15 and Equations 16, 17, and/or 18 in § 63.7530.
9. Oxygen content	a. Continuously monitor the oxygen content using an oxygen analyzer system according to § 63.7525(a). This requirement does not apply to units that install an oxygen trim system since these units will set the trim system to the level specified in § 63.7525(a)(7). b. Reducing the data to 30-day rolling averages; and c. Maintain the 30-day rolling average oxygen content at or above the lowest hourly average oxygen level measured during the CO performance test.
10. Boiler or process heater operating load	a. Collecting operating load data or steam generation data every 15 minutes. b. Reducing the data to 30-day rolling averages; and c. Maintaining the 30-day rolling average operating load such that it does not exceed 110 percent of the highest hourly average operating load recorded during the performance test according to § 63.7520(c).
11. SO ₂ emissions using SO ₂ CEMS	a. Collecting the SO ₂ CEMS output data according to § 63.7525; b. Reducing the data to 30-day rolling averages; and c. Maintaining the 30-day rolling average SO ₂ CEMS emission rate to a level at or below the highest hourly SO ₂ rate measured during the HCl performance test according to § 63.7530.

Table 9 to Subpart DDDDD of Part 63 - Reporting Requirements

As stated in § 63.7550, you must comply with the following requirements for reports:

You must submit a(n)	The report must contain . . .	You must submit the report . . .
1. Compliance	a. Information required in § 63.7550(c)(1) through (5); and	Semiannually, annually, biennially, or every 5 years according to the requirements

You must submit a(n)	The report must contain . . .	You must submit the report . . .
report	b. If there are no deviations from any emission limitation (emission limit and operating limit) that applies to you and there are no deviations from the requirements for work practice standards for periods of startup and shutdown in Table 3 to this subpart that apply to you, a statement that there were no deviations from the emission limitations and work practice standards during the reporting period. If there were no periods during which the CMSs, including continuous emissions monitoring system, continuous opacity monitoring system, and operating parameter monitoring systems, were out-of-control as specified in § 63.8(c)(7), a statement that there were no periods during which the CMSs were out-of-control during the reporting period; and c. If you have a deviation from any emission limitation (emission limit and operating limit) where you are not using a CMS to comply with that emission limit or operating limit, or a deviation from a work practice standard for periods of startup and shutdown, during the reporting period, the report must contain the information in § 63.7550(d); and d. If there were periods during which the CMSs, including continuous emissions monitoring system, continuous opacity monitoring system, and operating parameter monitoring systems, were out-of-control as specified in § 63.8(c)(7), or otherwise not operating, the report must contain the information in § 63.7550(e)	in § 63.7550(b).

Table 10 to Subpart DDDDD of Part 63 - Applicability of General Provisions to Subpart DDDDD

As stated in § 63.7565, you must comply with the applicable General Provisions according to the following:

Citation	Subject	Applies to subpart DDDDD
§ 63.1	Applicability	Yes.
§ 63.2	Definitions	Yes. Additional terms defined in § 63.7575
§ 63.3	Units and Abbreviations	Yes.
§ 63.4	Prohibited Activities and Circumvention	Yes.
§ 63.5	Preconstruction Review and Notification Requirements	Yes.
§ 63.6(a), (b)(1)-(b)(5), (b)(7), (c)	Compliance with Standards and Maintenance Requirements	Yes.
§ 63.6(e)(1)(i)	General duty to minimize emissions.	No. See § 63.7500(a)(3) for the general duty requirement.
§ 63.6(e)(1)(ii)	Requirement to correct malfunctions as soon as practicable.	No.
§ 63.6(e)(3)	Startup, shutdown, and malfunction plan requirements.	No.

Citation	Subject	Applies to subpart DDDDD
§ 63.6(f)(1)	Startup, shutdown, and malfunction exemptions for compliance with non-opacity emission standards.	No.
§ 63.6(f)(2) and (3)	Compliance with non-opacity emission standards.	Yes.
§ 63.6(g)	Use of alternative standards	Yes, except § 63.7555(d)(13) specifies the procedure for application and approval of an alternative timeframe with the PM controls requirement in the startup work practice (2).
§ 63.6(h)(1)	Startup, shutdown, and malfunction exemptions to opacity standards.	No. See § 63.7500(a).
§ 63.6(h)(2) to (h)(9)	Determining compliance with opacity emission standards	No. Subpart DDDDD specifies opacity as an operating limit not an emission standard.
§ 63.6(i)	Extension of compliance	Yes. Note: Facilities may also request extensions of compliance for the installation of combined heat and power, waste heat recovery, or gas pipeline or fuel feeding infrastructure as a means of complying with this subpart.
§ 63.6(j)	Presidential exemption.	Yes.
§ 63.7(a), (b), (c), and (d)	Performance Testing Requirements	Yes.
§ 63.7(e)(1)	Conditions for conducting performance tests	No. Subpart DDDDD specifies conditions for conducting performance tests at § 63.7520(a) to (c).
§ 63.7(e)(2)-(e)(9), (f), (g), and (h)	Performance Testing Requirements	Yes.
§ 63.8(a) and (b)	Applicability and Conduct of Monitoring	Yes.
§ 63.8(c)(1)	Operation and maintenance of CMS	Yes.
§ 63.8(c)(1)(i)	General duty to minimize emissions and CMS operation	No. See § 63.7500(a)(3).
§ 63.8(c)(1)(ii)	Operation and maintenance of CMS	Yes.
§ 63.8(c)(1)(iii)	Startup, shutdown, and malfunction plans for CMS	No.
§ 63.8(c)(2) to (c)(9)	Operation and maintenance of CMS	Yes.

Citation	Subject	Applies to subpart DDDDD
§ 63.8(d)(1) and (2)	Monitoring Requirements, Quality Control Program	Yes.
§ 63.8(d)(3)	Written procedures for CMS	Yes, except for the last sentence, which refers to a startup, shutdown, and malfunction plan. Startup, shutdown, and malfunction plans are not required.
§ 63.8(e)	Performance evaluation of a CMS	Yes.
§ 63.8(f)	Use of an alternative monitoring method.	Yes.
§ 63.8(g)	Reduction of monitoring data	Yes.
§ 63.9	Notification Requirements	Yes.
§ 63.10(a), (b)(1)	Recordkeeping and Reporting Requirements	Yes.
§ 63.10(b)(2)(i)	Recordkeeping of occurrence and duration of startups or shutdowns	Yes.
§ 63.10(b)(2)(ii)	Recordkeeping of malfunctions	No. See § 63.7555(d)(7) for recordkeeping of occurrence and duration and § 63.7555(d)(8) for actions taken during malfunctions.
§ 63.10(b)(2)(iii)	Maintenance records	Yes.
§ 63.10(b)(2)(iv) and (v)	Actions taken to minimize emissions during startup, shutdown, or malfunction	No.
§ 63.10(b)(2)(vi)	Recordkeeping for CMS malfunctions	Yes.
§ 63.10(b)(2)(vii) to (xiv)	Other CMS requirements	Yes.
§ 63.10(b)(3)	Recordkeeping requirements for applicability determinations	No.
§ 63.10(c)(1) to (9)	Recordkeeping for sources with CMS	Yes.
§ 63.10(c)(10) and (11)	Recording nature and cause of malfunctions, and corrective actions	No. See § 63.7555(d)(7) for recordkeeping of occurrence and duration and § 63.7555(d)(8) for actions taken during malfunctions.
§ 63.10(c)(12) and (13)	Recordkeeping for sources with CMS	Yes.
§ 63.10(c)(15)	Use of startup, shutdown, and malfunction plan	No.

Citation	Subject	Applies to subpart DDDDD
§ 63.10(d)(1) and (2)	General reporting requirements	Yes.
§ 63.10(d)(3)	Reporting opacity or visible emission observation results	No.
§ 63.10(d)(4)	Progress reports under an extension of compliance	Yes.
§ 63.10(d)(5)	Startup, shutdown, and malfunction reports	No. See § 63.7550(c)(11) for malfunction reporting requirements.
§ 63.10(e)	Additional reporting requirements for sources with CMS	Yes.
§ 63.10(f)	Waiver of recordkeeping or reporting requirements	Yes.
§ 63.11	Control Device Requirements	No.
§ 63.12	State Authority and Delegation	Yes.
§ 63.13-63.16	Addresses, Incorporation by Reference, Availability of Information, Performance Track Provisions	Yes.
§ 63.1(a)(5),(a)(7)-(a)(9), (b)(2), (c)(3)-(4), (d), 63.6(b)(6), (c)(3), (c)(4), (d), (e)(2), (e)(3)(ii), (h)(3), (h)(5)(iv), 63.8(a)(3), 63.9(b)(3), (h)(4), 63.10(c)(2)-(4), (c)(9).	Reserved	No.

Table 11 to Subpart DDDDD of Part 63 - Alternative Emission Limits for New or Reconstructed Boilers and Process Heaters That Commenced Construction or Reconstruction After June 4, 2010, and Before May 20, 2011

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during periods of startup and shutdown . . .	Using this specified sampling volume or test run duration . . .
1. Units in all subcategories designed to burn solid fuel	a. HCl	0.022 lb per MMBtu of heat input	For M26A, collect a minimum of 1 dscm per run; for M26 collect a minimum of 120 liters per run.
2. Units in all subcategories designed to burn solid fuel that combust at least 10 percent biomass/bio-based solids on an annual heat input basis and less than 10 percent coal/solid fossil fuels on an annual heat input basis	a. Mercury	8.0E-07 ^a lb per MMBtu of heat input	For M29, collect a minimum of 4 dscm per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784 ^b collect a minimum of 4 dscm.
3. Units in all subcategories designed to burn solid fuel that combust at least 10 percent	a. Mercury	2.0E-06 lb per MMBtu of heat input	For M29, collect a minimum of 4 dscm per run; for M30A or M30B,

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during periods of startup and shutdown . . .	Using this specified sampling volume or test run duration . . .
coal/solid fossil fuels on an annual heat input basis and less than 10 percent biomass/bio-based solids on an annual heat input basis			collect a minimum sample as specified in the method; for ASTM D6784 ^b collect a minimum of 4 dscm.
4. Units design to burn coal/solid fossil fuel	a. Filterable PM (or TSM)	1.1E-03 lb per MMBtu of heat input; or (2.3E-05 lb per MMBtu of heat input)	Collect a minimum of 3 dscm per run.
5. Pulverized coal boilers designed to burn coal/solid fossil fuel	a. Carbon monoxide (CO) (or CEMS)	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (320 ppm by volume on a dry basis corrected to 3 percent oxygen, ^c 30-day rolling average)	1 hr minimum sampling time.
6. Stokers designed to burn coal/solid fossil fuel	a. CO (or CEMS).	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (340 ppm by volume on a dry basis corrected to 3 percent oxygen, ^c 10-day rolling average)	1 hr minimum sampling time.
7. Fluidized bed units designed to burn coal/solid fossil fuel	a. CO (or CEMS)	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (230 ppm by volume on a dry basis corrected to 3 percent oxygen, ^c 30-day rolling average)	1 hr minimum sampling time.
8. Fluidized bed units with an integrated heat exchanger designed to burn coal/solid fossil fuel	a. CO (or CEMS)	140 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (150 ppm by volume on a dry basis corrected to 3 percent oxygen, ^c 30-day rolling average)	1 hr minimum sampling time.
9. Stokers/sloped grate/others designed to burn wet biomass fuel	a. CO (or CEMS)	620 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (390 ppm by volume on a dry basis corrected to 3 percent oxygen, ^c 30-day rolling average)	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	3.0E-02 lb per MMBtu of heat input; or (2.6E-05 lb per MMBtu of heat input)	Collect a minimum of 2 dscm per run.
10. Stokers/sloped grate/others designed to	a. CO	560 ppm by volume on a dry basis	1 hr minimum sampling time.

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during periods of startup and shutdown . . .	Using this specified sampling volume or test run duration . . .
burn kiln-dried biomass fuel		corrected to 3 percent oxygen	
	b. Filterable PM (or TSM)	3.0E-02 lb per MMBtu of heat input; or (4.0E-03 lb per MMBtu of heat input)	Collect a minimum of 2 dscm per run
11. Fluidized bed units designed to burn biomass/bio-based solids	a. CO (or CEMS)	230 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (310 ppm by volume on a dry basis corrected to 3 percent oxygen, ^c 30-day rolling average)	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	9.8E-03 lb per MMBtu of heat input; or (8.3E-05 ^a lb per MMBtu of heat input)	Collect a minimum of 3 dscm per run
12. Suspension burners designed to burn biomass/bio-based solids	a. CO (or CEMS)	2,400 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (2,000 ppm by volume on a dry basis corrected to 3 percent oxygen ^c 10-day rolling average)	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	3.0E-02 lb per MMBtu of heat input; or (6.5E-03 lb per MMBtu of heat input)	Collect a minimum of 2 dscm per run.
13. Dutch Ovens/Pile burners designed to burn biomass/bio-based solids	a. CO (or CEMS)	1,010 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (520 ppm by volume on a dry basis corrected to 3 percent oxygen ^c 10-day rolling average)	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	8.0E-03 lb per MMBtu of heat input; or (3.9E-05 lb per MMBtu of heat input)	Collect a minimum of 3 dscm per run.
14. Fuel cell units designed to burn biomass/bio-based solids	a. CO	910 ppm by volume on a dry basis corrected to 3 percent oxygen	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	2.0E-02 lb per MMBtu of heat input; or (2.9E-05 lb per MMBtu of heat input)	Collect a minimum of 2 dscm per run.
15. Hybrid suspension grate boiler designed to burn biomass/bio-based solids	a. CO (or CEMS)	1,100 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (900 ppm by volume on a dry basis corrected	1 hr minimum sampling time.

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during periods of startup and shutdown . . .	Using this specified sampling volume or test run duration . . .
		to 3 percent oxygen, ^c 30-day rolling average)	
	b. Filterable PM (or TSM)	2.6E-02 lb per MMBtu of heat input; or (4.4E-04 lb per MMBtu of heat input)	Collect a minimum of 3 dscm per run
16. Units designed to burn liquid fuel	a. HCl	4.4E-04 lb per MMBtu of heat input	For M26A: Collect a minimum of 2 dscm per run; for M26, collect a minimum of 240 liters per run
	b. Mercury.	4.8E-07 ^a lb per MMBtu of heat input	For M29, collect a minimum of 4 dscm per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784 ^b collect a minimum of 4 dscm.
17. Units designed to burn heavy liquid fuel	a. CO	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	1.3E-02 lb per MMBtu of heat input; or (7.5E-05 lb per MMBtu of heat input)	Collect a minimum of 3 dscm per run.
18. Units designed to burn light liquid fuel	a. CO	130 ppm by volume on a dry basis corrected to 3 percent oxygen	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	2.0E-03 ^a lb per MMBtu of heat input; or (2.9E-05 lb per MMBtu of heat input)	Collect a minimum of 3 dscm per run
19. Units designed to burn liquid fuel that are non-continental units	a. CO	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average based on stack test	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	2.3E-02 lb per MMBtu of heat input; or (8.6E-04 lb per MMBtu of heat input)	Collect a minimum of 4 dscm per run
20. Units designed to burn gas 2 (other) gases	a. CO	130 ppm by volume on a dry basis corrected to 3 percent oxygen	1 hr minimum sampling time.
	b. HCl	1.7E-03 lb per MMBtu of heat input	For M26A, Collect a minimum of 2 dscm per run; for M26, collect a minimum of 240 liters per run.
	c. Mercury	7.9E-06 lb per MMBtu of heat input	For M29, collect a minimum of 3 dscm per run; for M30A or M30B, collect a minimum sample as

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during periods of startup and shutdown . . .	Using this specified sampling volume or test run duration . . .
			specified in the method; for ASTM D6784 ^b collect a minimum of 3 dscm.
	d. Filterable PM (or TSM)	6.7E-03 lb per MMBtu of heat input; or (2.1E-04 lb per MMBtu of heat input)	Collect a minimum of 3 dscm per run.

^a If you are conducting stack tests to demonstrate compliance and your performance tests for this pollutant for at least 2 consecutive years show that your emissions are at or below this limit, you can skip testing according to § 63.7515 if all of the other provision of § 63.7515 are met. For all other pollutants that do not contain a footnote “a”, your performance tests for this pollutant for at least 2 consecutive years must show that your emissions are at or below 75 percent of this limit in order to qualify for skip testing.

^b Incorporated by reference, see § 63.14.

^c An owner or operator may determine compliance with the carbon monoxide emissions limit using carbon dioxide as a diluent correction in place of oxygen as described in § 63.7525(a)(1). EPA Method 19 F-factors in 40 CFR part 60, appendix A-7, and EPA Method 19 equations in 40 CFR part 60, appendix A-7, must be used to generate the appropriate CO₂ correction percentage for the fuel type burned in the unit, and must also take into account that the 3% oxygen correction is to be done on a dry basis. The methodology must account for any CO₂ being added to, or removed from, the emissions gas stream as a result of limestone injection, scrubber media, etc. This methodology must be detailed in the site-specific monitoring plan developed according to § 63.7505(d).

Table 12 to Subpart DDDDD of Part 63 - Alternative Emission Limits for New or Reconstructed Boilers and Process Heaters That Commenced Construction or Reconstruction After May 20, 2011, and Before December 23, 2011

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during periods of startup and shutdown . . .	Using this specified sampling volume or test run duration . . .
1. Units in all subcategories designed to burn solid fuel	a. HCl	0.022 lb per MMBtu of heat input	For M26A, collect a minimum of 1 dscm per run; for M26 collect a minimum of 120 liters per run.
	b. Mercury	3.5E-06 ^a lb per MMBtu of heat input	For M29, collect a minimum of 3 dscm per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784 ^b collect a minimum of 3 dscm.
2. Units design to burn coal/solid fossil fuel	a. Filterable PM (or TSM)	1.1E-03 lb per MMBtu of heat input; or (2.3E-05 lb per MMBtu of heat input)	Collect a minimum of 3 dscm per run.

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during periods of startup and shutdown . . .	Using this specified sampling volume or test run duration . . .
3. Pulverized coal boilers designed to burn coal/solid fossil fuel	a. Carbon monoxide (CO) (or CEMS)	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (320 ppm by volume on a dry basis corrected to 3 percent oxygen, ^c 30-day rolling average)	1 hr minimum sampling time.
4. Stokers designed to burn coal/solid fossil fuel	a. CO (or CEMS)	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (340 ppm by volume on a dry basis corrected to 3 percent oxygen, ^c 10-day rolling average)	1 hr minimum sampling time.
5. Fluidized bed units designed to burn coal/solid fossil fuel	a. CO (or CEMS)	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (230 ppm by volume on a dry basis corrected to 3 percent oxygen, ^c 30-day rolling average)	1 hr minimum sampling time.
6. Fluidized bed units with an integrated heat exchanger designed to burn coal/solid fossil fuel	a. CO (or CEMS)	140 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (150 ppm by volume on a dry basis corrected to 3 percent oxygen, ^c 30-day rolling average)	1 hr minimum sampling time.
7. Stokers/sloped grate/others designed to burn wet biomass fuel	a. CO (or CEMS)	620 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (390 ppm by volume on a dry basis corrected to 3 percent oxygen, ^c 30-day rolling average)	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	3.0E-02 lb per MMBtu of heat input; or (2.6E-05 lb per MMBtu of heat input)	Collect a minimum of 2 dscm per run.
8. Stokers/sloped grate/others designed to burn kiln-dried biomass fuel	a. CO	460 ppm by volume on a dry basis corrected to 3 percent oxygen	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	3.0E-02 lb per MMBtu of heat input; or (4.0E-03 lb per MMBtu of heat input)	Collect a minimum of 2 dscm per run.
9. Fluidized bed units designed to burn biomass/bio-based solids	a. CO (or CEMS)	260 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (310 ppm by volume on a dry basis corrected to 3 percent oxygen, ^c 30-day rolling average)	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	9.8E-03 lb per MMBtu of heat input; or (8.3E-05 ^a lb per MMBtu of heat input)	Collect a minimum of 3 dscm per run.
10. Suspension burners	a. CO (or	2,400 ppm by volume on a dry basis	1 hr minimum sampling time.

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during periods of startup and shutdown . . .	Using this specified sampling volume or test run duration . . .
designed to burn biomass/bio-based solids		corrected to 3 percent oxygen, 3-run average; or (2,000 ppm by volume on a dry basis corrected to 3 percent oxygen, ^c 10-day rolling average)	
	b. Filterable PM (or TSM)	3.0E-02 lb per MMBtu of heat input; or (6.5E-03 lb per MMBtu of heat input)	Collect a minimum of 2 dscm per run.
11. Dutch Ovens/Pile burners designed to burn biomass/bio-based solids	a. CO (or CEMS)	470 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (520 ppm by volume on a dry basis corrected to 3 percent oxygen, ^c 10-day rolling average)	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	3.2E-03 lb per MMBtu of heat input; or (3.9E-05 lb per MMBtu of heat input)	Collect a minimum of 3 dscm per run.
12. Fuel cell units designed to burn biomass/bio-based solids	a. CO	910 ppm by volume on a dry basis corrected to 3 percent oxygen	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	2.0E-02 lb per MMBtu of heat input; or (2.9E-05 lb per MMBtu of heat input)	Collect a minimum of 2 dscm per run.
13. Hybrid suspension grate boiler designed to burn biomass/bio-based solids	a. CO (or CEMS)	1,500 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (900 ppm by volume on a dry basis corrected to 3 percent oxygen, ^c 30-day rolling average)	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	2.6E-02 lb per MMBtu of heat input; or (4.4E-04 lb per MMBtu of heat input)	Collect a minimum of 3 dscm per run.
14. Units designed to burn liquid fuel	a. HCl	4.4E-04 lb per MMBtu of heat input	For M26A: Collect a minimum of 2 dscm per run; for M26, collect a minimum of 240 liters per run.
	b. Mercury	4.8E-07 ^a lb per MMBtu of heat input	For M29, collect a minimum of 4 dscm per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784 ^b collect a minimum of 4 dscm.
15. Units designed to burn heavy liquid fuel	a. CO	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	1.3E-02 lb per MMBtu of heat input; or (7.5E-05 lb per MMBtu of heat input)	Collect a minimum of 2 dscm per run.
16. Units designed to burn	a. CO	130 ppm by volume on a dry basis	1 hr minimum sampling time.

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during periods of startup and shutdown . . .	Using this specified sampling volume or test run duration . . .
light liquid fuel		corrected to 3 percent oxygen	
	b. Filterable PM (or TSM)	1.3E-03 ^a lb per MMBtu of heat input; or (2.9E-05 lb per MMBtu of heat input)	Collect a minimum of 3 dscm per run.
17. Units designed to burn liquid fuel that are non-continental units	a. CO	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average based on stack test	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	2.3E-02 lb per MMBtu of heat input; or (8.6E-04 lb per MMBtu of heat input)	Collect a minimum of 4 dscm per run.
18. Units designed to burn gas 2 (other) gases	a. CO	130 ppm by volume on a dry basis corrected to 3 percent oxygen	1 hr minimum sampling time.
	b. HCl	1.7E-03 lb per MMBtu of heat input	For M26A, Collect a minimum of 2 dscm per run; for M26, collect a minimum of 240 liters per run.
	c. Mercury	7.9E-06 lb per MMBtu of heat input	For M29, collect a minimum of 3 dscm per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784 ^b collect a minimum of 3 dscm.
	d. Filterable PM (or TSM)	6.7E-03 lb per MMBtu of heat input; or (2.1E-04 lb per MMBtu of heat input)	Collect a minimum of 3 dscm per run.

^a If you are conducting stack tests to demonstrate compliance and your performance tests for this pollutant for at least 2 consecutive years show that your emissions are at or below this limit, you can skip testing according to § 63.7515 if all of the other provision of § 63.7515 are met. For all other pollutants that do not contain a footnote “a”, your performance tests for this pollutant for at least 2 consecutive years must show that your emissions are at or below 75 percent of this limit in order to qualify for skip testing.

^b Incorporated by reference, see § 63.14.

^c An owner or operator may determine compliance with the carbon monoxide emissions limit using carbon dioxide as a diluent correction in place of oxygen as described in § 63.7525(a)(1). EPA Method 19 F-factors in 40 CFR part 60, appendix A-7, and EPA Method 19 equations in 40 CFR part 60, appendix A-7, must be used to generate the appropriate CO₂ correction percentage for the fuel type burned in the unit, and must also take into account that the 3% oxygen correction is to be done on a dry basis. The methodology must account for any CO₂ being added to, or removed from, the emissions gas stream as a result of limestone injection, scrubber media, etc. This methodology must be detailed in the site-specific monitoring plan developed according to § 63.7505(d).

Table 13 to Subpart DDDDD of Part 63 - Alternative Emission Limits for New or Reconstructed Boilers and Process Heaters That Commenced Construction or Reconstruction After December 23, 2011, and Before April 1, 2013

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during periods of startup and shutdown . . .	Using this specified sampling volume or test run duration . . .
1. Units in all subcategories designed to burn solid fuel	a. HCl	0.022 lb per MMBtu of heat input	For M26A, collect a minimum of 1 dscm per run; for M26 collect a minimum of 120 liters per run.
	b. Mercury	8.6E-07 ^a lb per MMBtu of heat input	For M29, collect a minimum of 4 dscm per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784 ^b collect a minimum of 4 dscm.
2. Pulverized coal boilers designed to burn coal/solid fossil fuel	a. Carbon monoxide (CO) (or CEMS)	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (320 ppm by volume on a dry basis corrected to 3 percent oxygen, ^c 30-day rolling average)	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	1.1E-03 lb per MMBtu of heat input; or (2.8E-05 lb per MMBtu of heat input)	Collect a minimum of 3 dscm per run.
3. Stokers designed to burn coal/solid fossil fuel	a. CO (or CEMS)	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (340 ppm by volume on a dry basis corrected to 3 percent oxygen, ^c 10-day rolling average)	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	2.8E-02 lb per MMBtu of heat input; or (2.3E-05 lb per MMBtu of heat input)	Collect a minimum of 2 dscm per run.
4. Fluidized bed units designed to burn coal/solid fossil fuel	a. CO (or CEMS)	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (230 ppm by volume on a dry basis corrected to 3 percent oxygen, ^c 30-day rolling average)	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	1.1E-03 lb per MMBtu of heat input; or (2.3E-05 lb per MMBtu of heat input)	Collect a minimum of 3 dscm per run.
5. Fluidized bed units with an integrated heat exchanger designed to burn coal/solid fossil fuel	a. CO (or CEMS)	140 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (150 ppm by volume on a dry basis corrected to 3 percent oxygen, ^c 30-day rolling average)	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	1.1E-03 lb per MMBtu of heat input; or (2.3E-05 lb per MMBtu of heat input)	Collect a minimum of 3 dscm per run.
6. Stokers/sloped grate/others designed to burn wet biomass fuel	a. CO (or CEMS)	620 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (410 ppm by volume on a dry basis corrected to 3 percent oxygen, ^c 10-day rolling average)	1 hr minimum sampling time.

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during periods of startup and shutdown . . .	Using this specified sampling volume or test run duration . . .
	b. Filterable PM (or TSM)	3.0E-02 lb per MMBtu of heat input; or (2.6E-05 lb per MMBtu of heat input)	Collect a minimum of 2 dscm per run.
7. Stokers/sloped grate/others designed to burn kiln-dried biomass fuel	a. CO	460 ppm by volume on a dry basis corrected to 3 percent oxygen	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	3.2E-01 lb per MMBtu of heat input; or (4.0E-03 lb per MMBtu of heat input)	Collect a minimum of 2 dscm per run.
8. Fluidized bed units designed to burn biomass/bio-based solids	a. CO (or CEMS)	230 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (310 ppm by volume on a dry basis corrected to 3 percent oxygen, ^c 30-day rolling average)	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	9.8E-03 lb per MMBtu of heat input; or (8.3E-05 ^a lb per MMBtu of heat input)	Collect a minimum of 3 dscm per run.
9. Suspension burners designed to burn biomass/bio-based solids	a. CO (or CEMS)	2,400 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (2,000 ppm by volume on a dry basis corrected to 3 percent oxygen, ^c 10-day rolling average)	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	5.1E-02 lb per MMBtu of heat input; or (6.5E-03 lb per MMBtu of heat input)	Collect a minimum of 2 dscm per run.
10. Dutch Ovens/Pile burners designed to burn biomass/bio-based solids	a. CO (or CEMS)	810 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (520 ppm by volume on a dry basis corrected to 3 percent oxygen, ^c 10-day rolling average)	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	3.6E-02 lb per MMBtu of heat input; or (3.9E-05 lb per MMBtu of heat input)	Collect a minimum of 2 dscm per run.
11. Fuel cell units designed to burn biomass/bio-based solids	a. CO	910 ppm by volume on a dry basis corrected to 3 percent oxygen	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	2.0E-02 lb per MMBtu of heat input; or (2.9E-05 lb per MMBtu of heat input)	Collect a minimum of 2 dscm per run.
12. Hybrid suspension grate boiler designed to burn biomass/bio-based solids	a. CO (or CEMS)	1,500 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (900 ppm by volume on a dry basis corrected to 3 percent oxygen, ^c 30-day rolling average)	1 hr minimum sampling time.
	b. Filterable	2.6E-02 lb per MMBtu of heat input; or	Collect a minimum of 3 dscm per run.

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during periods of startup and shutdown . . .	Using this specified sampling volume or test run duration . . .
	PM (or TSM)	(4.4E-04 lb per MMBtu of heat input)	
13. Units designed to burn liquid fuel	a. HCl	1.2E-03 lb per MMBtu of heat input	For M26A: Collect a minimum of 2 dscm per run; for M26, collect a minimum of 240 liters per run.
	b. Mercury	4.9E-07 ^a lb per MMBtu of heat input	For M29, collect a minimum of 4 dscm per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784 ^b collect a minimum of 4 dscm.
14. Units designed to burn heavy liquid fuel	a. CO (or CEMS)	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (18 ppm by volume on a dry basis corrected to 3 percent oxygen, ^c 10-day rolling average)	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	1.3E-03 lb per MMBtu of heat input; or (7.5E-05 lb per MMBtu of heat input)	Collect a minimum of 3 dscm per run.
15. Units designed to burn light liquid fuel	a. CO (or CEMS)	130 ^a ppm by volume on a dry basis corrected to 3 percent oxygen; or (60 ppm by volume on a dry basis corrected to 3 percent oxygen, ^c 1-day block average).	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	1.1E-03 ^a lb per MMBtu of heat input; or (2.9E-05 lb per MMBtu of heat input)	Collect a minimum of 3 dscm per run.
16. Units designed to burn liquid fuel that are non-continental units	a. CO	130 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average based on stack test; or (91 ppm by volume on a dry basis corrected to 3 percent oxygen, ^c 3-hour rolling average)	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	2.3E-02 lb per MMBtu of heat input; or (8.6E-04 lb per MMBtu of heat input)	Collect a minimum of 2 dscm per run.
17. Units designed to burn gas 2 (other) gases	a. CO	130 ppm by volume on a dry basis corrected to 3 percent oxygen	1 hr minimum sampling time.
	b. HCl	1.7E-03 lb per MMBtu of heat input	For M26A, Collect a minimum of 2 dscm per run; for M26, collect a minimum of 240 liters per run.
	c. Mercury	7.9E-06 lb per MMBtu of heat input	For M29, collect a minimum of 3 dscm per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784 ^b collect a minimum of 3 dscm.

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during periods of startup and shutdown . . .	Using this specified sampling volume or test run duration . . .
	d. Filterable PM (or TSM)	6.7E-03 lb per MMBtu of heat input; or (2.1E-04 lb per MMBtu of heat input)	Collect a minimum of 3 dscm per run.

^a If you are conducting stack tests to demonstrate compliance and your performance tests for this pollutant for at least 2 consecutive years show that your emissions are at or below this limit and you are not required to conduct testing for CEMS or CPMS monitor certification, you can skip testing according to § 63.7515 if all of the other provision of § 63.7515 are met. For all other pollutants that do not contain a footnote “a”, your performance tests for this pollutant for at least 2 consecutive years must show that your emissions are at or below 75 percent of this limit in order to qualify for skip testing.

^b Incorporated by reference, see § 63.14.

^c An owner or operator may determine compliance with the carbon monoxide emissions limit using carbon dioxide as a diluent correction in place of oxygen as described in § 63.7525(a)(1). EPA Method 19 F-factors in 40 CFR part 60, appendix A-7, and EPA Method 19 equations in 40 CFR part 60, appendix A-7, must be used to generate the appropriate CO₂ correction percentage for the fuel type burned in the unit, and must also take into account that the 3% oxygen correction is to be done on a dry basis. The methodology must account for any CO₂ being added to, or removed from, the emissions gas stream as a result of limestone injection, scrubber media, etc. This methodology must be detailed in the site-specific monitoring plan developed according to § 63.7505(d).

Table 14 to Subpart DDDDD of Part 63 - Alternative Emission Limits for New or Reconstructed Boilers and Process Heaters ^c

As stated in § 63.7500, you may continue to comply with the following applicable emission limits until October 6, 2025:

[Units with heat input capacity of 10 million Btu per hour or greater]

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during startup and shutdown . . .	Or the emissions must not exceed the following alternative output-based limits, except during startup and shutdown . . .	Using this specified sampling volume or test run duration . . .
1. Units in all subcategories designed to burn solid fuel.	a. HCl	2.2E-02 lb per MMBtu of heat input	2.5E-02 lb per MMBtu of steam output or 0.28 lb per MWh	For M26A, collect a minimum of 1 dscm per run; for M26 collect a minimum of 120 liters per run.
	b. Mercury	8.0E-07 ^a lb per MMBtu of heat input	8.7E-07 ^a lb per MMBtu of steam output or 1.1E-05 ^a lb per MWh	For M29, collect a minimum of 4 dscm per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784 ^b collect a minimum of 4 dscm.
2. Units designed to burn	a. Filterable	1.1E-03 lb per MMBtu of heat input; or (2.3E-05 lb per MMBtu	1.1E-03 lb per MMBtu of steam output or 1.4E-02 lb	Collect a minimum of 3 dscm

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during startup and shutdown . . .	Or the emissions must not exceed the following alternative output-based limits, except during startup and shutdown . . .	Using this specified sampling volume or test run duration . . .
coal/solid fossil fuel	PM (or TSM)	of heat input)	per MWh; or (2.7E-05 lb per MMBtu of steam output or 2.9E-04 lb per MWh)	per run.
3. Pulverized coal boilers designed to burn coal/solid fossil fuel	a. Carbon monoxide (CO) (or CEMS)	130 ppm by volume on a dry basis corrected to 3-percent oxygen, 3-run average; or (320 ppm by volume on a dry basis corrected to 3-percent oxygen, ^d 30-day rolling average)	0.11 lb per MMBtu of steam output or 1.4 lb per MWh; 3-run average	1 hr minimum sampling time.
4. Stokers/others designed to burn coal/solid fossil fuel	a. CO (or CEMS)	130 ppm by volume on a dry basis corrected to 3-percent oxygen, 3-run average; or (340 ppm by volume on a dry basis corrected to 3-percent oxygen, ^d 30-day rolling average)	0.12 lb per MMBtu of steam output or 1.4 lb per MWh; 3-run average	1 hr minimum sampling time.
5. Fluidized bed units designed to burn coal/solid fossil fuel	a. CO (or CEMS)	130 ppm by volume on a dry basis corrected to 3-percent oxygen, 3-run average; or (230 ppm by volume on a dry basis corrected to 3-percent oxygen, ^d 30-day rolling average)	0.11 lb per MMBtu of steam output or 1.4 lb per MWh; 3-run average	1 hr minimum sampling time.
6. Fluidized bed units with an integrated heat exchanger designed to burn coal/solid fossil fuel	a. CO (or CEMS)	140 ppm by volume on a dry basis corrected to 3-percent oxygen, 3-run average; or (150 ppm by volume on a dry basis corrected to 3-percent oxygen, ^d 30-day rolling average)	1.2E-01 lb per MMBtu of steam output or 1.5 lb per MWh; 3-run average	1 hr minimum sampling time.
7. Stokers/sloped grate/others designed to burn wet biomass fuel	a. CO (or CEMS)	620 ppm by volume on a dry basis corrected to 3-percent oxygen, 3-run average; or (390 ppm by volume on a dry basis corrected to 3-percent oxygen, ^d 30-day rolling average)	5.8E-01 lb per MMBtu of steam output or 6.8 lb per MWh; 3-run average	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	3.0E-02 lb per MMBtu of heat input; or (2.6E-05 lb per MMBtu of heat input)	3.5E-02 lb per MMBtu of steam output or 4.2E-01 lb per MWh; or (2.7E-05 lb per MMBtu of steam output or 3.7E-04 lb per MWh)	Collect a minimum of 2 dscm per run.
8. Stokers/sloped	a. CO	460 ppm by volume on a dry	4.2E-01 lb per MMBtu of	1 hr minimum sampling time.

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during startup and shutdown . . .	Or the emissions must not exceed the following alternative output-based limits, except during startup and shutdown . . .	Using this specified sampling volume or test run duration . . .
grate/others designed to burn kiln-dried biomass fuel		basis corrected to 3-percent oxygen	steam output or 5.1 lb per MWh	
	b. Filterable PM (or TSM)	3.0E-02 lb per MMBtu of heat input; or (4.0E-03 lb per MMBtu of heat input)	3.5E-02 lb per MMBtu of steam output or 4.2E-01 lb per MWh; or (4.2E-03 lb per MMBtu of steam output or 5.6E-02 lb per MWh)	Collect a minimum of 2 dscm per run.
9. Fluidized bed units designed to burn biomass/bio-based solids	a. CO (or CEMS)	230 ppm by volume on a dry basis corrected to 3-percent oxygen, 3-run average; or (310 ppm by volume on a dry basis corrected to 3-percent oxygen, ^d 30-day rolling average)	2.2E-01 lb per MMBtu of steam output or 2.6 lb per MWh; 3-run average	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	9.8E-03 lb per MMBtu of heat input; or (8.3E-05 ^a lb per MMBtu of heat input)	1.2E-02 lb per MMBtu of steam output or 0.14 lb per MWh; or (1.1E-04 ^a lb per MMBtu of steam output or 1.2E-03 ^a lb per MWh)	Collect a minimum of 3 dscm per run.
10. Suspension burners designed to burn biomass/bio-based solids	a. CO (or CEMS)	2,400 ppm by volume on a dry basis corrected to 3-percent oxygen, 3-run average; or (2,000 ppm by volume on a dry basis corrected to 3-percent oxygen, ^d 10-day rolling average)	1.9 lb per MMBtu of steam output or 27 lb per MWh; 3-run average	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	3.0E-02 lb per MMBtu of heat input; or (6.5E-03 lb per MMBtu of heat input)	3.1E-02 lb per MMBtu of steam output or 4.2E-01 lb per MWh; or (6.6E-03 lb per MMBtu of steam output or 9.1E-02 lb per MWh)	Collect a minimum of 2 dscm per run.
11. Dutch Ovens/Pile burners designed to burn biomass/bio-based solids	a. CO (or CEMS)	330 ppm by volume on a dry basis corrected to 3-percent oxygen, 3-run average; or (520 ppm by volume on a dry basis corrected to 3-percent oxygen, ^d 10-day rolling average)	3.5E-01 lb per MMBtu of steam output or 3.6 lb per MWh; 3-run average	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	3.2E-03 lb per MMBtu of heat input; or (3.9E-05 lb per MMBtu	4.3E-03 lb per MMBtu of steam output or 4.5E-02 lb	Collect a minimum of 3 dscm per run.

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during startup and shutdown . . .	Or the emissions must not exceed the following alternative output-based limits, except during startup and shutdown . . .	Using this specified sampling volume or test run duration . . .
		of heat input)	per MWh; or (5.2E-05 lb per MMBtu of steam output or 5.5E-04 lb per MWh)	
12. Fuel cell units designed to burn biomass/bio-based solids	a. CO	910 ppm by volume on a dry basis corrected to 3-percent oxygen	1.1 lb per MMBtu of steam output or 1.0E+01 lb per MWh	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	2.0E-02 lb per MMBtu of heat input; or (2.9E-05 lb per MMBtu of heat input)	3.0E-02 lb per MMBtu of steam output or 2.8E-01 lb per MWh; or (5.1E-05 lb per MMBtu of steam output or 4.1E-04 lb per MWh)	Collect a minimum of 2 dscm per run.
13. Hybrid suspension grate boiler designed to burn biomass/bio-based solids	a. CO (or CEMS)	1,100 ppm by volume on a dry basis corrected to 3-percent oxygen, 3-run average; or (900 ppm by volume on a dry basis corrected to 3-percent oxygen, ^d 30-day rolling average)	1.4 lb per MMBtu of steam output or 12 lb per MWh; 3-run average	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	2.6E-02 lb per MMBtu of heat input; or (4.4E-04 lb per MMBtu of heat input)	3.3E-02 lb per MMBtu of steam output or 3.7E-01 lb per MWh; or (5.5E-04 lb per MMBtu of steam output or 6.2E-03 lb per MWh)	Collect a minimum of 3 dscm per run.
14. Units designed to burn liquid fuel	a. HCl	4.4E-04 lb per MMBtu of heat input	4.8E-04 lb per MMBtu of steam output or 6.1E-03 lb per MWh	For M26A: Collect a minimum of 2 dscm per run; for M26, collect a minimum of 240 liters per run.
	b. Mercury	4.8E-07 ^a lb per MMBtu of heat input	5.3E-07 ^a lb per MMBtu of steam output or 6.7E-06 ^a lb per MWh	For M29, collect a minimum of 4 dscm per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784 ^b collect a minimum of 4 dscm.
15. Units designed to burn heavy liquid fuel	a. CO	130 ppm by volume on a dry basis corrected to 3-percent oxygen, 3-run average	0.13 lb per MMBtu of steam output or 1.4 lb per MWh; 3-run average	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	1.3E-02 lb per MMBtu of heat input; or (7.5E-05 ^a lb per	1.5E-02 lb per MMBtu of steam output or 1.8E-01 lb per MWh; or (8.2E-05 ^a lb	Collect a minimum of 3 dscm per run.

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during startup and shutdown . . .	Or the emissions must not exceed the following alternative output-based limits, except during startup and shutdown . . .	Using this specified sampling volume or test run duration . . .
		MMBtu of heat input)	per MMBtu of steam output or 1.1E-03 ^a lb per MWh)	
16. Units designed to burn light liquid fuel	a. CO	130 ppm by volume on a dry basis corrected to 3-percent oxygen	0.13 lb per MMBtu of steam output or 1.4 lb per MWh	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	1.1E-03 ^a lb per MMBtu of heat input; or (2.9E-05 lb per MMBtu of heat input)	1.2E-03 ^a lb per MMBtu of steam output or 1.6E-02 ^a lb per MWh; or (3.2E-05 lb per MMBtu of steam output or 4.0E-04 lb per MWh)	Collect a minimum of 3 dscm per run.
17. Units designed to burn liquid fuel that are non-continental units	a. CO	130 ppm by volume on a dry basis corrected to 3-percent oxygen, 3-run average based on stack test	0.13 lb per MMBtu of steam output or 1.4 lb per MWh; 3-run average	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	2.3E-02 lb per MMBtu of heat input; or (8.6E-04 lb per MMBtu of heat input)	2.5E-02 lb per MMBtu of steam output or 3.2E-01 lb per MWh; or (9.4E-04 lb per MMBtu of steam output or 1.2E-02 lb per MWh)	Collect a minimum of 4 dscm per run.
18. Units designed to burn gas 2 (other) gases	a. CO	130 ppm by volume on a dry basis corrected to 3-percent oxygen	0.16 lb per MMBtu of steam output or 1.0 lb per MWh	1 hr minimum sampling time.
	b. HCl	1.7E-03 lb per MMBtu of heat input	2.9E-03 lb per MMBtu of steam output or 1.8E-02 lb per MWh	For M26A, Collect a minimum of 2 dscm per run; for M26, collect a minimum of 240 liters per run.
	c. Mercury	7.9E-06 lb per MMBtu of heat input	1.4E-05 lb per MMBtu of steam output or 8.3E-05 lb per MWh	For M29, collect a minimum of 3 dscm per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784 ^b collect a minimum of 3 dscm.
	d. Filterable PM (or TSM)	6.7E-03 lb per MMBtu of heat input; or (2.1E-04 lb per MMBtu of heat input)	1.2E-02 lb per MMBtu of steam output or 7.0E-02 lb per MWh; or (3.5E-04 lb per MMBtu of steam output or 2.2E-03 lb per	Collect a minimum of 3 dscm per run.

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during startup and shutdown . . .	Or the emissions must not exceed the following alternative output-based limits, except during startup and shutdown . . .	Using this specified sampling volume or test run duration . . .

MWh)

^a If you are conducting stack tests to demonstrate compliance and your performance tests for this pollutant for at least 2 consecutive years show that your emissions are at or below this limit, you can skip testing according to § 63.7515 if all of the other provisions of § 63.7515 are met. For all other pollutants that do not contain a footnote “a”, your performance tests for this pollutant for at least 2 consecutive years must show that your emissions are at or below 75 percent of this limit in order to qualify for skip testing.

^b Incorporated by reference, see § 63.14.

^c If your affected source is a new or reconstructed affected source that commenced construction or reconstruction after June 4, 2010, and before April 1, 2013, you may comply with the emission limits in Table 11, 12, or 13 to this subpart until January 31, 2016. On and after January 31, 2016, but before October 6, 2025 you may comply with the emission limits in this Table 14. On and after October 6, 2025, you must comply with the emission limits in Table 1 to this subpart.

^d An owner or operator may determine compliance with the carbon monoxide emissions limit using carbon dioxide as a diluent correction in place of oxygen as described in § 63.7525(a)(1). EPA Method 19 F-factors in 40 CFR part 60, appendix A-7, and EPA Method 19 equations in 40 CFR part 60, appendix A-7, must be used to generate the appropriate CO₂ correction percentage for the fuel type burned in the unit, and must also take into account that the 3% oxygen correction is to be done on a dry basis. The methodology must account for any CO₂ being added to, or removed from, the emissions gas stream as a result of limestone injection, scrubber media, etc. This methodology must be detailed in the site-specific monitoring plan developed according to § 63.7505(d).

Table 15 to Subpart DDDDD of Part 63 - Alternative Emission Limits for Existing Boilers and Process Heaters^d

As stated in § 63.7500, you may continue to comply with following emission limits until October 6, 2025:

[Units with heat input capacity of 10 million Btu per hour or greater]

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during startup and shutdown . . .	The emissions must not exceed the following alternative output-based limits, except during startup and shutdown . . .	Using this specified sampling volume or test run duration . . .
1. Units in all subcategories designed to burn solid fuel	a. HCl	2.2E-02 lb per MMBtu of heat input	2.5E-02 lb per MMBtu of steam output or 0.27 lb per MWh	For M26A, Collect a minimum of 1 dscm per run; for M26, collect a minimum of 120 liters per run.
	b. Mercury	5.7E-06 lb per MMBtu of heat input	6.4E-06 lb per MMBtu of steam output or 7.3E-05 lb per MWh	For M29, collect a minimum of 3 dscm per run; for M30A or M30B, collect a minimum sample as specified in the

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during startup and shutdown . . .	The emissions must not exceed the following alternative output-based limits, except during startup and shutdown . . .	Using this specified sampling volume or test run duration . . .
				method; for ASTM D6784 ^b collect a minimum of 3 dscm.
2. Units design to burn coal/solid fossil fuel	a. Filterable PM (or TSM)	4.0E-02 lb per MMBtu of heat input; or (5.3E-05 lb per MMBtu of heat input)	4.2E-02 lb per MMBtu of steam output or 4.9E-01 lb per MWh; or (5.6E-05 lb per MMBtu of steam output or 6.5E-04 lb per MWh)	Collect a minimum of 2 dscm per run.
3. Pulverized coal boilers designed to burn coal/solid fossil fuel	a. CO (or CEMS)	130 ppm by volume on a dry basis corrected to 3-percent oxygen, 3-run average; or (320 ppm by volume on a dry basis corrected to 3-percent oxygen, ^c 30-day rolling average)	0.11 lb per MMBtu of steam output or 1.4 lb per MWh; 3-run average	1 hr minimum sampling time.
4. Stokers/others designed to burn coal/solid fossil fuel	a. CO (or CEMS)	160 ppm by volume on a dry basis corrected to 3-percent oxygen, 3-run average; or (340 ppm by volume on a dry basis corrected to 3- percent oxygen, ^c 30-day rolling average)	0.14 lb per MMBtu of steam output or 1.7 lb per MWh; 3-run average	1 hr minimum sampling time.
5. Fluidized bed units designed to burn coal/solid fossil fuel	a. CO (or CEMS)	130 ppm by volume on a dry basis corrected to 3-percent oxygen, 3-run average; or (230 ppm by volume on a dry basis corrected to 3- percent oxygen, ^c 30-day rolling average)	0.12 lb per MMBtu of steam output or 1.4 lb per MWh; 3-run average	1 hr minimum sampling time.
6. Fluidized bed units with an integrated heat exchanger designed to burn coal/solid fossil fuel	a. CO (or CEMS)	140 ppm by volume on a dry basis corrected to 3-percent oxygen, 3-run average; or (150 ppm by volume on a dry basis corrected to 3-percent oxygen, ^c 30-day rolling average)	1.3E-01 lb per MMBtu of steam output or 1.5 lb per MWh; 3-run average	1 hr minimum sampling time.
7. Stokers/sloped grate/others designed to burn wet biomass fuel	a. CO (or CEMS)	1,500 ppm by volume on a dry basis corrected to 3-percent oxygen, 3-run average; or (720 ppm by volume on a dry basis corrected to 3-percent oxygen, ^c 30-day rolling average)	1.4 lb per MMBtu of steam output or 17 lb per MWh; 3-run average	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	3.7E-02 lb per MMBtu of heat input; or (2.4E-04 lb per MMBtu of heat input)	4.3E-02 lb per MMBtu of steam output or 5.2E-01 lb per MWh; or (2.8E-04 lb	Collect a minimum of 2 dscm per run.

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during startup and shutdown . . .	The emissions must not exceed the following alternative output-based limits, except during startup and shutdown . . .	Using this specified sampling volume or test run duration . . .
			per MMBtu of steam output or 3.4E-04 lb per MWh)	
8. Stokers/sloped grate/others designed to burn kiln-dried biomass fuel	a. CO	460 ppm by volume on a dry basis corrected to 3-percent oxygen	4.2E-01 lb per MMBtu of steam output or 5.1 lb per MWh	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	3.2E-01 lb per MMBtu of heat input; or (4.0E-03 lb per MMBtu of heat input)	3.7E-01 lb per MMBtu of steam output or 4.5 lb per MWh; or (4.6E-03 lb per MMBtu of steam output or 5.6E-02 lb per MWh)	Collect a minimum of 1 dscm per run.
9. Fluidized bed units designed to burn biomass/bio-based solid	a. CO (or CEMS)	470 ppm by volume on a dry basis corrected to 3-percent oxygen, 3-run average; or (310 ppm by volume on a dry basis corrected to 3- percent oxygen, ^c 30-day rolling average)	4.6E-01 lb per MMBtu of steam output or 5.2 lb per MWh; 3-run average	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	1.1E-01 lb per MMBtu of heat input; or (1.2E-03 lb per MMBtu of heat input)	1.4E-01 lb per MMBtu of steam output or 1.6 lb per MWh; or (1.5E-03 lb per MMBtu of steam output or 1.7E-02 lb per MWh)	Collect a minimum of 1 dscm per run.
10. Suspension burners designed to burn biomass/bio-based solid	a. CO (or CEMS)	2,400 ppm by volume on a dry basis corrected to 3-percent oxygen, 3-run average; or (2,000 ppm by volume on a dry basis corrected to 3-percent oxygen, ^c 10-day rolling average)	1.9 lb per MMBtu of steam output or 27 lb per MWh; 3-run average	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	5.1E-02 lb per MMBtu of heat input; or (6.5E-03 lb per MMBtu of heat input)	5.2E-02 lb per MMBtu of steam output or 7.1E-01 lb per MWh; or (6.6E-03 lb per MMBtu of steam output or 9.1E-02 lb per MWh)	Collect a minimum of 2 dscm per run.
11. Dutch Ovens/Pile burners designed to burn biomass/bio-based solid	a. CO (or CEMS)	770 ppm by volume on a dry basis corrected to 3-percent oxygen, 3-run average; or (520 ppm by volume on a dry basis corrected to 3-percent oxygen, ^c 10-day rolling average)	8.4E-01 lb per MMBtu of steam output or 8.4 lb per MWh; 3-run average	1 hr minimum sampling time.

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during startup and shutdown . . .	The emissions must not exceed the following alternative output-based limits, except during startup and shutdown . . .	Using this specified sampling volume or test run duration . . .
	b. Filterable PM (or TSM)	2.8E-01 lb per MMBtu of heat input; or (2.0E-03 lb per MMBtu of heat input)	3.9E-01 lb per MMBtu of steam output or 3.9 lb per MWh; or (2.8E-03 lb per MMBtu of steam output or 2.8E-02 lb per MWh)	Collect a minimum of 1 dscm per run.
12. Fuel cell units designed to burn biomass/bio-based solid	a. CO	1,100 ppm by volume on a dry basis corrected to 3-percent oxygen	2.4 lb per MMBtu of steam output or 12 lb per MWh	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	2.0E-02 lb per MMBtu of heat input; or (5.8E-03 lb per MMBtu of heat input)	5.5E-02 lb per MMBtu of steam output or 2.8E-01 lb per MWh; or (1.6E-02 lb per MMBtu of steam output or 8.1E-02 lb per MWh)	Collect a minimum of 2 dscm per run.
13. Hybrid suspension grate units designed to burn biomass/bio-based solid	a. CO (or CEMS)	3,500 ppm by volume on a dry basis corrected to 3-percent oxygen, 3-run average; or (900 ppm by volume on a dry basis corrected to 3- percent oxygen, ^c 30-day rolling average)	3.5 lb per MMBtu of steam output or 39 lb per MWh; 3-run average	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	4.4E-01 lb per MMBtu of heat input; or (4.5E-04 lb per MMBtu of heat input)	5.5E-01 lb per MMBtu of steam output or 6.2 lb per MWh; or (5.7E-04 lb per MMBtu of steam output or 6.3E-03 lb per MWh)	Collect a minimum of 1 dscm per run.
14. Units designed to burn liquid fuel	a. HCl	1.1E-03 lb per MMBtu of heat input	1.4E-03 lb per MMBtu of steam output or 1.6E-02 lb per MWh	For M26A, collect a minimum of 2 dscm per run; for M26, collect a minimum of 240 liters per run.
	b. Mercury	2.0E-06 lb per MMBtu of heat input	2.5E-06 lb per MMBtu of steam output or 2.8E-05 lb per MWh	For M29, collect a minimum of 3 dscm per run; for M30A or M30B collect a minimum sample as specified in the method, for ASTM D6784 ^b collect a minimum of 2 dscm.
15. Units designed to burn heavy liquid fuel	a. CO	130 ppm by volume on a dry basis corrected to 3-percent oxygen, 3-run average	0.13 lb per MMBtu of steam output or 1.4 lb per MWh; 3-run average	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	6.2E-02 lb per MMBtu of heat input; or (2.0E-04 lb per MMBtu	7.5E-02 lb per MMBtu of steam output or 8.6E-01 lb per MWh; or (2.5E-04 lb	Collect a minimum of 1 dscm per run.

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	The emissions must not exceed the following emission limits, except during startup and shutdown . . .	The emissions must not exceed the following alternative output-based limits, except during startup and shutdown . . .	Using this specified sampling volume or test run duration . . .
	TSM)	of heat input)	per MMBtu of steam output or 2.8E-03 lb per MWh)	
16. Units designed to burn light liquid fuel	a. CO	130 ppm by volume on a dry basis corrected to 3-percent oxygen	0.13 lb per MMBtu of steam output or 1.4 lb per MWh	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	7.9E-03 lb per MMBtu of heat input; or (6.2E-05 lb per MMBtu of heat input)	9.6E-03 lb per MMBtu of steam output or 1.1E-01 lb per MWh; or (7.5E-05 lb per MMBtu of steam output or 8.6E-04 lb per MWh)	Collect a minimum of 3 dscm per run.
17. Units designed to burn liquid fuel that are non-continental units	a. CO	130 ppm by volume on a dry basis corrected to 3-percent oxygen, 3-run average based on stack test	0.13 lb per MMBtu of steam output or 1.4 lb per MWh; 3-run average	1 hr minimum sampling time.
	b. Filterable PM (or TSM)	2.7E-01 lb per MMBtu of heat input; or (8.6E-04 lb per MMBtu of heat input)	3.3E-01 lb per MMBtu of steam output or 3.8 lb per MWh; or (1.1E-03 lb per MMBtu of steam output or 1.2E-02 lb per MWh)	Collect a minimum of 2 dscm per run.
18. Units designed to burn gas 2 (other) gases	a. CO	130 ppm by volume on a dry basis corrected to 3-percent oxygen	0.16 lb per MMBtu of steam output or 1.0 lb per MWh	1 hr minimum sampling time.
	b. HCl	1.7E-03 lb per MMBtu of heat input	2.9E-03 lb per MMBtu of steam output or 1.8E-02 lb per MWh	For M26A, collect a minimum of 2 dscm per run; for M26, collect a minimum of 240 liters per run.
	c. Mercury	7.9E-06 lb per MMBtu of heat input	1.4E-05 lb per MMBtu of steam output or 8.3E-05 lb per MWh	For M29, collect a minimum of 3 dscm per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784 ^b collect a minimum of 2 dscm.
	d. Filterable PM (or TSM)	6.7E-03 lb per MMBtu of heat input or (2.1E-04 lb per MMBtu of heat input)	1.2E-02 lb per MMBtu of steam output or 7.0E-02 lb per MWh; or (3.5E-04 lb per MMBtu of steam output or 2.2E-03 lb per MWh)	Collect a minimum of three dscm per run.

^a If you are conducting stack tests to demonstrate compliance and your performance tests for this pollutant for at least 2 consecutive years show that your emissions are at or below this limit, you can skip testing according to § 63.7515 if all of the other provisions of § 63.7515 are met. For all other pollutants that do not contain a footnote a, your performance tests for this pollutant for at least 2 consecutive years must show that your emissions are at or below 75 percent of this limit in order to qualify for skip testing.

^b Incorporated by reference, see § 63.14.

^c An owner or operator may determine compliance with the carbon monoxide emissions limit using carbon dioxide as a diluent correction in place of oxygen as described in § 63.7525(a)(1). EPA Method 19 F-factors in 40 CFR part 60, appendix A-7, and EPA Method 19 equations in 40 CFR part 60, appendix A-7, must be used to generate the appropriate CO₂ correction percentage for the fuel type burned in the unit, and must also take into account that the 3% oxygen correction is to be done on a dry basis. The methodology must account for any CO₂ being added to, or removed from, the emissions gas stream as a result of limestone injection, scrubber media, etc. This methodology must be detailed in the site-specific monitoring plan developed according to § 63.7505(d).

^d Before October 6, 2025 you may comply with the emission limits in this Table 15. On and after October 6, 2025, you must comply with the emission limits in Table 2 to this subpart.

Appendix L. Fabric Filters Authorized for Construction

Subject Item	Description	Manufacturer (Model)	Pressure Drop Range
TREA 217	Storage Bin L15,16 Cartridge Filter	U.S. Air Filtration Inc (I30102)	0.5-8.0 inches H ₂ O
TREA 233	Conveyor Transfer 005-006 Cartridge Filter	Donaldson Torit (DFT 3-24)	0.5-8.0 inches H ₂ O
TREA 234	Conveyor Transfer 001 to 070 Cartridge Filter	Donaldson Torit (DFT 3-24)	0.5-8.0 inches H ₂ O
TREA 236	Surge Pile/Reclaim 011-01 Cartridge Filter	Donaldson Torit (DFT 3-24)	0.5-8.0 inches H ₂ O
TREA 237	Conveyor Transfer 008-009 Cartridge Filter	Donaldson Torit (DFT 3-24)	0.5-8.0 inches H ₂ O
TREA 238	Secondary Crusher L6 Cartridge Filter	Donaldson Torit (DFT 3-24)	0.5-8.0 inches H ₂ O
TREA 239	Secondary Crusher L8 Cartridge Filter	Donaldson Torit (DFT 3-24)	0.5-8.0 inches H ₂ O
TREA 240	Secondary Crusher L7 Cartridge Filter	Donaldson Torit (DFT 3-24)	0.5-8.0 inches H ₂ O
TREA 241	Secondary Crusher L9 Cartridge Filter	Donaldson Torit (DFT 3-24)	0.5-8.0 inches H ₂ O
TREA 242	Secondary Crusher L10 Cartridge Filter	Donaldson Torit (DFT 3-24)	0.5-8.0 inches H ₂ O
TREA 243	Step III Coarse Crusher Pan Feeders & Lime Transfer Cartridge Filter	Donaldson Torit (DFT 3-24)	0.5-8.0 inches H ₂ O
TREA 244	Conveyor Transfer 011-02/03 Cartridge Filter	Donaldson Torit (DFT 3-24)	0.5-8.0 inches H ₂ O
TREA 245	Secondary Crusher L11 Cartridge Filter	Donaldson Torit (DFT 3-24)	0.5-8.0 inches H ₂ O
TREA 246	Secondary Crusher L12 Cartridge Filter	Donaldson Torit (DFT 3-24)	0.5-8.0 inches H ₂ O
TREA 247	Secondary Crusher L13 Cartridge Filter	Donaldson Torit (DFT 3-24)	0.5-8.0 inches H ₂ O
TREA 250	Secondary Crusher L18 Cartridge Filter	Donaldson Torit (DFT 3-24)	0.5-8.0 inches H ₂ O
TREA 251	Secondary Crusher L21 Cartridge Filter	Donaldson Torit (DFT 3-24)	0.5-8.0 inches H ₂ O
TREA 252	Secondary Crusher L19 Cartridge Filter	Donaldson Torit (DFT 3-24)	0.5-8.0 inches H ₂ O
TREA 253	Secondary Crusher L20 Cartridge Filter	Donaldson Torit (DFT 3-24)	0.5-8.0 inches H ₂ O
TREA 254	Secondary Crusher L22 Cartridge Filter	Donaldson Torit (DFT 3-24)	0.5-8.0 inches H ₂ O
TREA 255	Secondary Crusher L23 Cartridge Filter	Donaldson Torit (DFT 3-24)	0.5-8.0 inches H ₂ O
TREA 256	Secondary Crusher L28 Cartridge Filter	Donaldson Torit (DFT 3-24)	0.5-8.0 inches H ₂ O
TREA 257	Secondary Crusher L24 Cartridge Filter	Donaldson Torit (DFT 3-24)	0.5-8.0 inches H ₂ O
TREA 258	Secondary Crusher L25	Donaldson Torit (DFT 3-24)	0.5-8.0 inches H ₂ O

	Cartridge Filter		
TREA 259	Secondary Crusher L26 Cartridge Filter	Donaldson Torit (DFT 3-24)	0.5-8.0 inches H ₂ O
TREA 260	Secondary Crusher L27 Cartridge Filter	Donaldson Torit (DFT 3-24)	0.5-8.0 inches H ₂ O
TREA 261	Conveyor Transfer 009-020 Cartridge Filter	Donaldson Torit (DFT 3-24)	0.5-8.0 inches H ₂ O
TREA 262	Conveyor Transfer 003-004 Cartridge Filter	Donaldson Torit (DFT 3-24)	0.5-8.0 inches H ₂ O
TREA 264	Conveyor Transfer 003 Cartridge Filter	Donaldson Torit (DFT 3-24)	0.5-8.0 inches H ₂ O
TREA 265	Conveyor Transfer 001-070 Bin Cartridge Filter	Donaldson Torit (DFT 3-24)	0.5-8.0 inches H ₂ O
TREA 269	Tertiary Storage 006-080 Bin Cartridge Filter	Donaldson Torit (DFT 3-24)	0.5-8.0 inches H ₂ O

Appendix M. Fugitive Source List

This Appendix Contains a list of the fugitive sources, their design requirements, and start dates.

ID	Description	Maximum Design Capacity	Throughput Material	Start Date
FUGI 6	Overburden to Truck, Overburden to Stockpile	217 acres	Waste rock	1967
	Overburden to Truck	20,482,560 tons	Waste Rock	1967
	Overburden to Stockpile	20,482,560 tons	Waste Rock	1967
FUGI 8	Crude Ore Hauling, Waste Material Hauling, Coal Delivery Traffic	3,600,000 VMT	Coal/Waste Rock/Crude ore	1967
FUGI 20	Small Truck Traffic	3,600,000 VMT	Distance Travelled	1967
FUGI 18	Blasting	208 blasts/yr	Crude Ore	1967
FUGI 11	Ballast Feed Rock Stockpile - East Pit	2 acres	Waste Rock	1978
	Loading in	778,400 tons/yr	Waste Rock	
	Loading out	32,723 tons/yr	Waste Rock	
FUGI 29	Ballast Feed Rock Stockpile - West Pit	3 acres	Waste Rock	1978
	Loading in	974,400 tons/yr	Waste Rock	
	Loading out	738,594 tons/yr	Waste Rock	
FUGI 22	Ballast Product Rock Stockpile - East Pit	2 acres	Waste Rock	1978
	Loading	508,697 tons/year	Waste Rock	
FUGI 5	Ballast Product Rock Stockpile - East Pit - West Pit	2.05 acres	Waste Rock	1978
	Loading	790,698 tons/yr	Waste Rock	
FUGI 4	Ballast Fines Rock Stockpile - East Pit	1.69 acres	Waste Rock	1978
		583,759 tons/yr	Waste Rock	
FUGI 25	Ballast Fines Rock Stockpile - West Pit	2.06 acres	Waste Rock	1978
		790,698 tons/yr	Waste Rock	
FUGI 3	Coarse Tailings Stockpile	24 acres	Waste Rock	1969
FUGI 27	Scrap Rod Stockpile	0.6 acres	Waste Material	1969
	Loading in	3,600 tons/yr	Waste Material	
	Loading out	3,582 tons/yr	Waste Material	
FUGI 24	Group 13 Feed Stockpile	3 acres	Crude Ore	1978
	Loading in	88,995 tons/yr	Crude Ore	
FUGI 1	Group 13 Screened Pellets Stockpile	0 acres	Pellets	1978

FUGI 10	Group 13 Screened Fines Stockpile	0.38 acres	Crude Ore	1978
	Loading out	117,793 tons/yr	Crude Ore	
FUGI 14	Steps 1/2/3 Crude Ore stockpile	11.5 acres	Crude Ore	1969
	Loading in	2,720,668 tons/yr	Crude Ore	
	Loading out	2,596,415 tons/yr	Crude Ore	
FUGI 15	Step 1/2/3 Concentrate Stockpile	3 acres	Concentrate	1969
	Loading in	1,220,424 tons/yr	Concentrate	
	Loading out	1,364,139 tons/yr	Concentrate	
FUGI 23	Steps 1/2 Pellet Stockpile #44	2 acres	Pellets	1969
	Loading in	10,185,932 tons/yr	Pellets	
	Loading out	10,238,259 tons/yr	Pellets	
FUGI 17	Steps 1/2 Auxiliary Stockpile #45	0 acres	Pellets	1969
	Loading in	461,375 tons/yr	Pellets	
	Loading out	461,375 tons/yr	Pellets	
FUGI 28	Step 3 Main Pellet Stockpile	8 acres	Pellets	1978
	Loading in	8,212,807 tons/yr	Pellets	
	Loading out	8,774,288 tons/yr	Pellets	
FUGI 12	Waste Rock Stockpile	432 acres	Waste Rock	1967
	Loading in	57,615,040 tons/yr	Waste Rock	
FUGI 9	Crude Ore to Truck loading	61,788,552 tons/yr	Crude Ore	
FUGI 19	Step I/II Crude Ore Stockpile Temp 72	7 acres	Crude Ore	1999
	Loading in	3,688,598 tons/yr	Crude Ore	
	Loading out	3,767,112 tons/yr	Crude Ore	
FUGI 21	Step III Crude Ore Stockpile Temp 74	3 acres	Crude Ore	1999
	Loading in	3,688,598 tons/yr	Crude Ore	
	Loading out	3,767,112 tons/yr	Crude Ore	
FUGI 16	Tailings Basin	1028 acres	Tailings	1969

Appendix N. Authorized Biomass in Rotary Kilns

The following materials are allowed to be fed to the rotary kiln burner at Agglomerator Lines 3 through 7 (EQUI 3, EQUI 146, EQUI 179, EQUI 279, EQUI 280) at U.S. Steel MinnTac:

Wood based:

- Cedar chips without bark attached
- Cedar chips with some bark attached
- Pine chips without bark attached
- Planed chips from clean unadulterated wood
- Bark
- Logging residue
- Sawdust from clean unadulterated wood
- Sander dust from clean unadulterated wood

Agriculture Based:

- Millet hulls
- Sunflower hulls
- Sunflower screenings
- Corn stover
- Rice hull
- Oat hulls
- Distiller's grain
- Flour dust screenings
- Elevator screenings of wheat, soy, and oat
- Hay
- A small portion of unspecified types of grasses

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Appendix O. Presidential Proclamation on Regulatory Relief for Certain Station Sources To Promote American Iron Ore Processing Security.



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Presidential Documents

Title 3—

Proclamation 10958 of July 17, 2025

The President

Regulatory Relief for Certain Stationary Sources To Promote American Iron Ore Processing Security

By the President of the United States of America

A Proclamation

1. Taconite iron ore processing is fundamental to the United States' steel production and manufacturing sectors. The facilities involved in the process supply essential raw materials used to make steel, which is used in national defense systems, critical infrastructure, and a broad range of industrial applications. Preserving and enhancing domestic taconite processing capabilities is vital to reducing reliance on foreign sources and ensuring resilience of American industrial supply chains.

2. On March 6, 2024, the Environmental Protection Agency published a final rule, pursuant to section 112 of the Clean Air Act, 42 U.S.C. 7412, titled *National Emission Standards for Hazardous Air Pollutants: Taconite Iron Ore Processing*, 89 FR 16408 (Taconite Rule). The Taconite Rule imposes new emissions-control requirements on taconite iron ore processing facilities.

3. The Taconite Rule places significant burdens on a sector critical to the Nation's industrial foundation. The Taconite Rule mandates compliance with standards that rely on emissions-control technologies that have not been demonstrated to work in the taconite industry, are untested at commercial scale, or are not reasonably achievable under current operational conditions. If enforced under the current timeline as set forth at 89 FR 16408, the Taconite Rule risks forcing shutdowns, reducing domestic production, and undermining the Nation's ability to supply steel for defense, energy, and critical manufacturing. The United States must not allow inflexible regulatory deadlines to jeopardize a material critical to our industrial base. Maintaining this capacity is essential to our national security and economic resilience.

NOW, THEREFORE, I, DONALD J. TRUMP, President of the United States of America, by the authority vested in me by the Constitution and the laws of the United States, including section 112(i)(4) of the Clean Air Act, 42 U.S.C. 7412(i)(4), do hereby proclaim that certain stationary sources subject to the Taconite Rule, as identified in Annex I of this proclamation, are exempt from compliance with the Taconite Rule for a period of 2 years beyond the Taconite Rule's relevant compliance dates (Exemption). The technology to implement the Taconite Rule is not currently available, and it is necessary to issue this Exemption now because long design, permitting, and construction lead times mean that regulated entities will not be able to meet the relevant compliance deadlines absent compliance relief. This Exemption applies to all compliance deadlines established under the Taconite Rule, with each such deadline extended by 2 years from the date originally required for such deadline. The effect of this Exemption is that, during each such 2-year period, these stationary sources are subject to the emissions and compliance obligations that they are currently subject to under the applicable standard as that standard existed prior to the Taconite Rule. In support of this Exemption, I hereby make the following determinations:

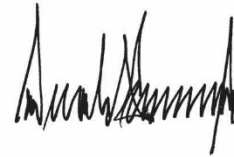
a. The technology to implement the Taconite Rule is not available. Such technology does not exist in a commercially viable form sufficient to allow

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implementation of and compliance with the Taconite Rule by the compliance dates in the Taconite Rule.

b. It is in the national security interests of the United States to issue this Exemption for the reasons stated in paragraphs 1 and 3 of this proclamation.

IN WITNESS WHEREOF, I have hereunto set my hand this seventeenth day of July, in the year of our Lord two thousand twenty-five, and of the Independence of the United States of America the two hundred and fiftieth.

A handwritten signature in black ink, appearing to be a stylized representation of a name, possibly 'Donald Trump', with a long, sweeping horizontal stroke at the bottom.

ANNEX I

1. United States Steel Corporation
 - i. Affected Facility/Source:
 - i. Keetac Plant, Keewatin, Minnesota
 - ii. Minntac Plant, Mountain Iron, Minnesota
2. Cleveland-Cliffs Inc.
 - i. Affected Facility/Source:
 - i. United Taconite, Minnesota
 - ii. Northshore Mining, Minnesota
 - iii. Hibbing Taconite, Minnesota
 - iv. Minorca Mine, Minnesota
 - v. Tilden Mine, Michigan
 - vi. Empire Mine, Michigan

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Appendix P. MinnTac Modeling Parameters for the Indurating Process Modification

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SO ₂ (lb/hr)	0.0	192.0	190.0	318.0	315.0
Primary SO ₄ (lb/hr)	0.0	36.0	25.0	17.0	16.0
NO _x (lb/hr)	0.0	569.0	528.0	305.0	305.0
PM ₁₀ filterable (lb/hr)	0.0	470.0	320.0	34.0	33.0
PM ₁₀ condensable (lb/hr)	0.0	38.0	26.0	18.0	18.0
Organic carbon (lb/hr)	0.0	0.9	0.6	1.3	1.3
Elemental carbon (lb/hr)	0.0	0.0	0.0	1.7	1.7
Other particulate (lb/hr)	0.0	470.0	320.0	32.3	31.3

3. Minntac Modeling Parameters for the Indurating Process Modification

(for Permit No. 13700005-004; still relevant to Permit No. 13700005-005)

June 7, 2005 Class I increment model inputs (with 13,300 ton NO_x/yr)

Line 3 values are for old configuration – that was without a wet scrubber or a multiclone.

Stack Information			Emissions, lb/hr		Modeled Parameters			
MPCA ID	Plant ID	Description	PM ₁₀ *	NO _x	Stack Height**, ft	Stack Exit Temp, °F	Velocity at Exit, ft/m in	Stack Exit Diameter, ft
SV 103	247-03-1	Line 3 waste gas	190	484	116	224	4825.6	10
SV 118	247-04-1	Line 4 waste gas	68.2	670	136	125	3925.6	14
SV 127	247-05-1	Line 5 waste gas	68.2	670	136	125	3925.6	14
SV 144	247-06-1	Line 6 waste gas	81.6	670	142.25	110	2238.1	16
SV 151	247-07-1	Line 7 waste gas	81.6	670	142.25	110	2238.1	16

* Both filterable and condensable are included in the PM₁₀ emission rate modeled.

** Stack height above the ground.

January 24, 2005 Regional Haze model inputs (post-modification)

Line 3 values are for old configuration – that was without a wet scrubber or a multiclone.

Post-modification with NO _x at 13,300 ton/yr*	Line 3	Line 4	Line 5	Line 6	Line 7
SO ₂ (lb/hr)	224.7	174.7	174.7	272.7	272.7
Primary SO ₄ (lb/hr)	26.9	22.3	22.3	26.8	26.8
NO _x (lb/hr)	484.0	670.0	670.0	670.0	670.0
PM ₁₀ filterable (lb/hr)	162.2	44.2	44.2	52.8	52.8
PM ₁₀ condensable (lb/hr)	27.8	24.0	24.0	28.8	28.8
Organic carbon (lb/hr)	1.0	1.7	1.7	2.0	2.0
Elemental carbon (lb/hr)	0.5	0.7	0.8	3.5	3.5
Other particulate (lb/hr)	161.8	43.5	43.4	49.3	49.3

* Annual emissions for NO_x are based on hourly averages calculated on a 12-month rolling sum.

January 24, 2005 Regional Haze model inputs (pre-modification)

Pre-modification Annual Emissions	Line 3	Line 4	Line 5	Line 6	Line 7