

**Technical Support Document
for
Draft Air Emission Permit No. 13700005-101**

This technical support document (TSD) is intended for all parties interested in the draft permit and to meet the requirements that have been set forth by the federal and state regulations (40 CFR § 70.7(a)(5) and Minn. R. 7007.0850, subp. 1). The purpose of this document is to provide the legal and factual justification for each applicable requirement or policy decision considered in the preliminary determination to issue the draft permit.

1. General information

1.1 Applicant and stationary source location

Table 1. Applicant and source address

Applicant/Address	Stationary source/Address (SIC Code: 1011 - Iron Ores)
US Steel MN Ore Operations 8771 Park Ridge Dr Mountain Iron, Minnesota 55768-2075	US Steel Corp - MinnTac 8771 Park Ridge Dr Mountain Iron, MN 55768-2075
Contact: Chrissy Bartovich Phone: 218-749-7364	

1.2 Facility description

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 was constructed three steps. Step I was constructed in 1967, Step II in 1972, and Step III in 1978. Production activities at the pellet plant consists of three stages of crushing (coarse crushing, secondary crushing, and tertiary crushing), concentrating of the ore, and pelletizing. The pelletizing lines consist of Line 3 from Step 1, Lines 4 and 5 from Step 2, and Lines 6 and 7 from Step 3.

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 PM2.5 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.

1.3 Description of the activities allowed by this permit action

Minor Amendment IND20060002 and IND20060001:

These minor amendments were received November 27, 2006, and December 20, 2006. These two amendments were submitted to establish parametric operating limits for controls subject to 40 CFR pt. 63, subp. RRRRR.

Administrative Amendment IND20080001:

This administrative amendment was received April 30, 2008. The minor amendment is to install a fire pump engine.

Major Amendment IND20080004, Minor Amendment IND20080003, Minor Amendment IND20080002:

These three amendments were submitted to establish parametric operating limits for controls subject to 40 CFR pt. 63, subp. RRRRR based on initial performance tests. Parametric limits for all control equipment are included in the reissued permit.

Reopening IND20080005:

This reopening was initiated by MPCA via a notice of compliance dated November 25, 2008. The reopening is to establish a throughput limit of 234 long tons/hr pellets on EQUI 350, L3 cooler vent stack pursuant to Minn. R. 7017.2025, subp. 3. The limit was created due to non-compliance during an August 5, 2008 performance test. The re-test was done at a lower throughput and therefore the MPCA established the limit. The MPCA will not carry forward this limit into the reissued permit because EQUI 350 has since been operated at an unrestricted capacity approved by MPCA performance testing staff, including most recently at 237 long tons/hr pellets in a 2025 performance test.

Administrative Amendment IND20100001:

This administrative amendment was received January 26, 2010. The administrative amendment is for the replacement of CE098 and CE099 with dry fabric filters venting indoors. The project proposed under this administrative amendment would normally not qualify as an administrative amendment. However, because U.S. Steel has a Schedule of Compliance (SOC) with the MPCA to replace other similar wet controls with dry controls as this application requests, and the fact that the application is 15 years old at the time of permit issuance, the MPCA is choosing to incorporate the application with the reissuance instead of denying it.

Administrative Amendment IND20100005:

This administrative amendment was received May 21, 2010. The administrative amendment is to clarify biomass materials allowed to be used in Lines 3-7 kilns. The list of biomass materials allowed has been updated to allow for use of both pine and cedar chips with bark attached. Previously, cedar chips without bark attached, cedar chips with some bark attached, pine chips without bark attached, and bark were all listed separately.

Reopening IND20100009:

This reopening was initiated by MPCA via a notice of compliance dated November 23, 2009. The reopening is to establish water flow and pressure drop operating limits for 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.

Notification of replacement of controls IND20100010:

This notification of replacement of controls was received December 20, 2010. The notification is for replacement of CE011 with cartridge filter TREA 210 which controls EQUI 321-EQUI 323 and EQUI 378-EQUI 380. U.S. Steel began operation of TREA 210 on 2/1/2011.

Administrative Amendment IND20110001:

This administrative amendment was received February 2, 2011. The administrative amendment was for replacement of controls TREA 130 and TREA 145 (CE129 and CE130). U.S. Steel stated in the application that the cartridge filters were vented indoors and resulted in no emissions. Similar to Administrative amendment IND20100001 above, the MPCA is incorporating this application due to the U.S. Steel SOC and age of the application rather than denying it.

Reopening IND20110006:

This reopening was initiated by MPCA via a notice of compliance dated January 20, 2011. The reopening is to establish water flow and pressure drop operating limits for TREA 126 pursuant to 40 CFR § 63.9590. U.S. Steel has been operating according to the limits set in the notice of compliance.

Notification of Replacement of Controls IND20110007 and IND20110008:

This notification of replacement of controls was initially received on March 7, 2011, with additional information provided on April 25, 2011. The notification is for replacement of baghouse ce095 with baghouse TREA 211, which controls EQUI 359, Step 1/2 bentonite unloading. U.S. Steel began operation of TREA 211 on 3/31/2011.

Administrative Amendment IND20120001:

This administrative amendment was received in November 2012 for a test extension. It is unknown for which test the application requested an extension because the MPCA does not have a copy of the application. Likely due to staff error, the application was not formally scanned into the MPCA's document archival database, and the original paper application is unlikely to be found due to its age. This amendment is being incorporated in this permit under the assumption that the performance test for which U.S. Steel requested an extension has since been performed.

Minor Amendment IND20120002:

This minor amendment was received April 30, 2012. The amendment is to replace a tertiary crusher, EU 138, with a new tertiary crusher EQUI 673, L28 tertiary crusher. The replacement tertiary crusher has a smaller capacity of 350 LTPH ore compared to crusher being replaced with a capacity of 558 LTPH ore. U.S. steel began operation of EQUI 673 on 5/31/2012. U.S. Steel erred in its application by including the effect of existing control equipment that did not contain federally enforceable limits to control emissions from the new L28 crusher. Proposing those limits would have required a major amendment under Minnesota Rules. However, the table below reflects the use of control equipment since this permit action will include the appropriate federally enforceable limits. Appropriate citations have been added to the permit indicating TREA 76 control efficiencies were used to reduce PTE and avoid the NSR major modification thresholds.

Table 2. IND20120002 Title I emissions summary

Pollutant	Unlimited potential emissions from the modification (tpy)	Limited potential emissions from the modification (tpy)	NSR/112(g) threshold for new major source (tpy)	NSR/112(g) review required? (yes/no)
PM	158.3	7.88	25	No

Pollutant	Unlimited potential emissions from the modification (tpy)	Limited potential emissions from the modification (tpy)	NSR/112(g) threshold for new major source (tpy)	NSR/112(g) review required? (yes/no)
PM ₁₀	135.5	8.55	15	No
PM _{2.5}	48.4	5.65	10	No

Major Amendment IND20120005:

This application was a reopening that migrated to the Tempo database as a major amendment. There is no application or other compliance document for which to reference. Therefore, this reopening will be closed out with no action taken.

Major Amendment IND20130001:

This major amendment was received October 15, 2013. The amendment is to replace existing wet controls in the Minntac crusher building with dry cartridge filter dust collectors. All dry controls have higher control efficiencies for particulate emissions compared to the existing wet scrubbers. The application is for the replacement of 67 wet scrubbers with dry controls. Minntac entered into a Compliance Agreement with the MPCA effective January 14, 2015, that authorized replacement of the wet scrubbers with dry cartridge filters. Upon issuance of the permit, the changes Minntac requested in this application will be incorporated in the permit and the Compliance Agreement will end. The table below summarizes the control replacements from the 2013 major amendment application, including those that have been completed and those that are authorized by this permit action:

Control equipment replacements authorized in Permit 1370005-101

Existing Wet control	Replacement Dry Cartridge Filter ID	Dry Cartridge Filter Startup date
CE004 (TREA 118)	TREA 231	9/20/2024
CE005 (TREA 119)	TREA 232	12/19/2024
CE006 (TREA 120)	TREA 243	TBD
CE008 (TREA 122)	TREA 233	TBD
CE009	TREA 212	9/18/2020
CE010 (TREA 124)	TREA 235	10/3/2025
CE012 (TREA 126)	TREA 244	TBD
CE013 (TREA 127)	TREA 236	TBD
CE014	TREA 219	7/2/2021
CE015	TREA 220	7/2/2021
CE016	TREA 221	12/15/2022
CE017	TREA 223	12/5/2022
CE018	TREA 226	8/18/2023
CE019	TREA 227	8/29/2023
CE020	TREA 228	9/28/2023
CE021	TREA 213	6/17/2019
CE022	TREA 222	11/17/2022
CE041 (TREA 48)	TREA 238	TBD
CE042 (TREA 49)	TREA 239	TBD
CE043 (TREA 50)	TREA 240	TBD
CE044 (TREA 51)	TREA 241	TBD
CE045 (TREA 52)	TREA 242	TBD
CE046 (TREA 53)	TREA 237	TBD
CE047 (TREA 54)	TREA 234	TBD
CE048 (TREA 55)	TREA 267	11/21/2024
CE049 (TREA 56)	TREA 230	12/7/2023
CE050 (TREA 57)	TREA 245	TBD

CE051 (TREA 58)	TREA 246	TBD
CE052 (TREA 59)	TREA 247	TBD
CE053 (TREA 60)	TREA 248	10/30/2025
CE054 (TREA 61)	TREA 249	9/23/2025
CE055 (TREA 62)	TREA 265	TBD
CE056 (TREA 63)	TREA 264	TBD
CE057 (TREA 64)	TREA 262	TBD
CE058 (TREA 65)	TREA 269	TBD
CE059 (TREA 66)	TREA 250	TBD
CE060 (TREA 67)	TREA 252	TBD
CE061 (TREA 68)	TREA 253	TBD
CE062 (TREA 69)	TREA 251	TBD
CE063 (TREA 70)	TREA 254	TBD
CE064 (TREA 71)	TREA 255	TBD
CE065 (TREA 72)	TREA 257	TBD
CE066 (TREA 73)	TREA 258	TBD
CE067 (TREA 74)	TREA 259	TBD
CE068 (TREA 75)	TREA 260	TBD
CE069 (TREA 76)	TREA 256	TBD
CE070	TREA 214	1/16/2016
CE071	TREA 215	10/2/2019
CE072	TREA 229	9/14/2023
CE079 (TREA 86)	TREA 261	TBD
CE080*	TREA 218	6/22/2022
CE081/CE149* (TREA 187)	TREA 217	TBD
CE082*	TREA 216	10/22/2020

*Scrubbers to be replaced applied for in 2021 major amendment application, authorized for replacement in amended compliance agreement.

All cartridge filters with TBD replacement dates are related to the emission units that they will control upon start-up in the MPCA's Tempo database. The relationships all list a start date of 1/1/2025 and flow percentage of 0%. The MPCA will update these relationships in Tempo in a future permit action based on Minntac's submittal of startup notifications.

Administrative Amendment IND20140001:

This administrative amendment was received March 7, 2014. The amendment is to incorporate a test frequency plan for Carbon Monoxide, Volatile Organic Compounds and Fluoride for the five furnace waste gas stacks. The plan contained more frequent testing than the effective permit at the time. The administrative amendment was required after the MPCA approved a proposed test frequency plan in a November 21, 2013, letter. The MPCA is maintaining the test frequency for these pollutants at every 60 months, as was approved in 2013 and applied for in this administrative amendment.

Minor Amendment IND20160001:

This minor amendment was received November 10, 2016. The amendment is to remove L26 tertiary crusher EU136 and replace L27 tertiary crusher EU137 with a new crusher. Minntac originally replaced EU137 with a Wier TT900 crusher in November 2016. However, shortly after startup that crusher encountered a mechanical failure. Minntac then commenced construction on the replacement to the failed crusher in April 2018, which remains onsite today as EQUI 675 (EU406). EQUI 675, a Metso MP800 crusher, has an identical maximum capacity to the Wier TT900 that failed, 550 LTPH. The 550 LTPH capacity is less than the capacity of the two crushers it replaced (996 LTPH). U.S. Steel erred in its application by including the effect of existing control equipment that did not contain federally enforceable limits to control emissions from the new L27 crusher. Proposing those limits would have required a major amendment under Minnesota Rules.

However, the table below reflects the use of control equipment since this permit action will include the appropriate federally enforceable limits.

Table 3. IND20160001 Title I emissions summary

Pollutant	Unlimited potential emissions from the modification (tpy)	Limited potential emissions from the modification (tpy)	NSR/112(g) threshold for new major source (tpy)	NSR/112(g) review required? (yes/no)
PM	158.3	7.88	25	No
PM ₁₀	135.5	8.55	15	No
PM _{2.5}	48.4	5.65	10	No

Minor Amendment IND20160002:

This minor amendment was received November 21, 2016. The amendment is to replace a 500-kW emergency generator, EU215, with a new 500-kW emergency generator, EQUI 671. The generator is subject to 40 CFR pt. 60, subp. IIII and 40 CFR pt. 63 subp. ZZZZ. U.S. Steel began operation of the generator in December 2016. The table below summarizes the change in PTE comparing the future potential emissions to baseline emissions showing that the replacement does not trigger NSR review.

Table 4. IND20160002 Title I emissions summary

Pollutant	Emissions increase from the modification (tpy)	Net emissions increase (tpy)	NSR/112(g) Significant thresholds for major sources (tpy)	NSR/ 112(g) review required? (yes/no)
PM	0.05	0.05	25	No
PM ₁₀	0.05	0.05	15	No
PM _{2.5}	0.05	0.05	10	No
NO _x	0.90	0.90	40	No
SO ₂	0.001	0.001	40	No
CO	0.78	0.78	100	No
Ozone (VOC)	0.02	0.02	40	No
Lead	0	0	0.6	No
CO ₂ e	194	194	75,000	No

Minor Amendment IND20170001

This minor amendment was received November 20, 2017. The amendment is to replace L23 and L25 tertiary crushers, EU133 and EU135, with two new crushers of comparable design capacity. The capacity of the old crushers was 558 LTPH while the replacement crusher capacities are 550 LTPH. U.S. Steel commenced construction of new crusher EQUI 674, replacing EU133 in September 2017. However, U.S. Steel has not completed the replacement of EU135, which remains in the permit as EQUI 304. This permit does not authorize the replacement of EQUI 304 with a new crusher, since more than 5 years have elapsed since the time of application.

U.S. Steel provided justification that the new tertiary crushers qualify as replacement units at 40 CFR § 52.21(b)(33). Therefore, when evaluating the installation of the temporary conveyors against NSR thresholds, Minntac treated the temporary replacement conveyors as existing emission units and evaluated emissions using the actual to projected actuals test. U.S. Steel application erred in its application by

including the effect of existing control equipment that did not contain federally enforceable limits to control emissions from the replacement crushers. Proposing those limits would have required a major amendment under Minnesota Rules. However, the table below reflects the use of control equipment since this permit action will include the appropriate federally enforceable limits.

Table 5. IND20170001 Title I emissions summary – future potential to projected actual emissions test

Pollutant	Future Potential (tpy)	Baseline actual emissions (tpy)	Projected Limited emissions increase (tpy)	NSR significant thresholds for major sources (tpy)	NSR review required? (Yes/No)
PM	15.77	6.01	9.75	25	No
PM ₁₀	17.10	6.01	11.09	15	No
PM _{2.5}	11.31	6.01	5.29	10	No

Minor Amendment IND20180001:

This minor amendment was received April 18, 2018. The amendment is to replace a rod mill with a capacity of 467 long tons per hour (LTPH) ore, with a new high pressure grinding roll circuit with a capacity of 550 LTPH. In addition to the grinding operation emission unit, EQUI 682, this minor amendment added five conveyor drop point emission units to the permit, EQUI 678, EQUI 679, EQUI 680, EQUI 681, and EQUI 683. All emission units vent emissions indoors. U.S. Steel began operation of these units in August of 2019.

Table 6. IND20180001 Title I emissions summary

Pollutant	Emissions increase from the modification (tpy)	Net emissions increase (tpy)	NSR/112(g) Significant thresholds for major sources (tpy)	NSR/ 112(g) review required? (yes/no)
PM	10.75	10.75	25	No
PM ₁₀	4.42	4.42	15	No
PM _{2.5}	0.93	0.93	10	No

Major Amendment IND20200001:

This major amendment was received June 18, 2020. The amendment is to replace a wet scrubber (CE082) controlling the L17 and L18 storage bins (EQUI 140-142, EQUI 251-254) with a cartridge filter, TREA 216. TREA 216 began operation in October 2020. This control equipment replacement was authorized prior to the issuance of this permit by the SOC.

Minor Amendment IND20210001:

The minor amendment was received September 29, 2023. The amendment is to install a new diesel emergency generator, EQUI 672. The generator is subject to 40 CFR pt. 60, subp. IIII and 40 CFR pt. 63 subp. ZZZZ. The generator commenced construction December 2021. The table below summarizes the change in PTE comparing the future potential emissions to baseline emissions showing that the replacement does not trigger NSR review.

Table 7. IND20210001 Title I emissions summary

Pollutant	Emissions increase from the modification (tpy)	Net emissions increase (tpy)	NSR/112(g) Significant thresholds for major sources (tpy)	NSR/ 112(g) review required? (yes/no)
PM	0.01	0.01	25	No
PM ₁₀	0.01	0.01	15	No
PM _{2.5}	0.01	0.01	10	No
NO _x	0.14	0.14	40	No
SO ₂	0.001	0.001	40	No
CO	0.05	0.05	100	No
Ozone (VOC)	0.14	0.14	40	No
Lead	0	0	0.6	No
CO ₂ e	19.4	19.4	75,000	No

Major Amendment IND20210002:

The major amendment was received December 15, 2021. The amendment is to replace wet scrubbers CE080 and CE081 with cartridge filters (fabric filters) TREA 218 and TREA 217, respectively. TREA 218 began operation in June of 2022 and controls the Line 13 and Line 14 concentrator emission units. TREA 217 which will control the line 15 and 16 concentrator emission units has not yet been installed. L15, 16 emission units are still controlled by wet scrubber TREA 187. These replacements were authorized prior to issuance of the major amendment by the SOC.

Notification of Replacement IND20220001

Minntac submitted a notification, received February 18, 2022, for the replacement of finished pellet conveyors that became inoperable after failure of the structure supporting the conveyors. Minntac provided justification that the temporary replacement conveyors met the PSD definition of replacement unit at 40 CFR § 52.21(b)(33). Therefore, when evaluating the installation of the temporary conveyors against NSR thresholds, Minntac treated the temporary replacement conveyors as existing emission units and evaluated emissions using the actual to projected actuals test. The Title I emissions summary is below and demonstrates that the project does not exceed NSR significant thresholds. See TSD attachment 1 for full details of the Title I emissions analysis.

Table 8. IND20220001 Title I emissions summary – actual to projected actual emissions test

Pollutant	Projected actual emissions * (tpy)	Baseline actual emissions ** (tpy)	Projected emissions increase prior to excludables (tpy)	Excludable emissions *** (tpy)	Projected emissions increase including excludables (tpy)	Projected Limited emissions increase including excludables (tpy)	NSR significant thresholds for major sources (tpy)	NSR review required? (Yes/No)
PM	26.9	26.9	0	0	0	0	25	No
PM ₁₀	13.45	13.45	0	0	0	0	15	No
PM _{2.5}	4.75	4.75	0	0	0	0	10	no

The temporary replacement conveyors had the same throughput as the original conveyors that failed and operated in the same manner (i.e no change in emission factor), therefore the project did not cause an increase under Minn 7007.1200, subp. 3.

Notification of Replacement IND20220002

Minntac submitted a notification, received October 24, 2022, for the replacement of temporary pellet conveyors with new permanent pellet conveyors, EQUI 697, EQUI 698, EQUI 699, EQUI 701, and EQUI 702. Minntac provided justification that the new conveyors met the PSD definition of replacement unit at 40 CFR § 52.21(b)(33). Therefore, when evaluating the installation of the new conveyors against the NSR significant thresholds, Minntac treated the new conveyors as existing emission units and evaluated emissions using the actual to projected actuals test. The Title I emissions summary is below and demonstrates that the project does not exceed NSR significant thresholds. See TSD attachment 1 for full details of the Title I emissions analysis.

Table 9. IND20220002 Title I emissions summary – actual to projected actual emissions test

Pollutant	Projected actual emissions * (tpy)	Baseline actual emissions ** (tpy)	Projected emissions increase prior to excludables (tpy)	Excludable emissions *** (tpy)	Projected emissions increase including excludables (tpy)	Projected Limited emissions increase including excludables (tpy)	NSR significant thresholds for major sources (tpy)	NSR review required? (Yes/No)
PM	26.9	26.9	0	0	0	0	25	No
PM ₁₀	13.45	13.45	0	0	0	0	15	No
PM _{2.5}	4.75	4.75	0	0	0	0	10	no

The replacement conveyors have the same throughput as the temporary conveyors and operate in the same manner (i.e no change in emission factor), therefore the project does not cause an increase under Minn 7007.1200, subp. 3.

Minor Amendment IND20230002

The minor amendment was received March 27, 2023. The amendment is to install a new diesel emergency generator, EQUI 703. The generator is subject to 40 CFR pt. 60, subp. IIII and 40 CFR pt. 63 subp. ZZZZ. The generator commenced construction June 2023. The table below summarizes the change in PTE comparing the future potential emissions to baseline emissions showing that the replacement does not trigger NSR review.

Table 10. IND20230002 Title I emissions summary

Pollutant	Emissions increase from the modification (tpy)	Net emissions increase (tpy)	NSR/112(g) Significant thresholds for major sources (tpy)	NSR/ 112(g) review required? (yes/no)
PM	0.02	0.02	25	No
PM ₁₀	0.02	0.02	15	No
PM _{2.5}	0.02	0.02	10	No
NO _x	0.41	0.41	40	No
SO ₂	0.001	0.001	40	No
CO	0.14	0.14	100	No
Ozone (VOC)	0.41	0.41	40	No
Lead	0	0	0.6	No
CO ₂ e	76.81	76.81	75,000	No

Minor Amendment IND20230005

The minor amendment was received November 3, 2023. The amendment is to install venturi scrubbers above pellet conveyor transfers EQUI 119 and EQUI 120 and route the emissions to a new collection system and new stack, STRU 271. U.S. Steel has described the reason for installation of the controls and collection system as being for industrial hygiene and occupational safety purposes. There are no emissions associated with this project because EQUI 119 and EQUI 120 were previously permitted and operating without controls.

Reopening IND20240001:

This reopening was initiated by the MPCA in a Notice of Compliance dated January 8, 2024. The Reopening, under Minn. R. 7007.1600 is to update control equipment operating parameters for TREA 37 and TREA 38, wet scrubbers controlling the waste gas stacks of Line 4 and Line 5, respectively. Based on September 2023 performance testing, the new operating limits for TREA 37 are water flow rate > 2322 gpm and pressure drop > 6.6 inches water column. The new operating limits for TREA 38 are water flow rate > 2298 gpm and pressure drop > 6.5 inches water column.

Minor Amendment IND20240002:

The minor amendment was received March 12, 2024. The amendment is to replace an existing emergency engine (EQUI 274) with a new emergency engine (EQUI 706). EQUI 706 fires ultra-low-sulfur diesel fuel and is subject to 40 CFR pt. 60, subp. IIII and 40 CFR pt. 63 subp. ZZZZ. U.S. Steel has scheduled the replacement for September 2024. The table below summarizes the change in PTE comparing the future potential emissions to baseline emissions showing that the replacement does not trigger NSR review.

Table 11. IND20240002 Title I emissions summary

Pollutant	Emissions increase from the modification (tpy)	Net emissions increase (tpy)	NSR/112(g) Significant thresholds for major sources (tpy)	NSR/ 112(g) review required? (yes/no)
PM	0.01	0.01	25	No
PM ₁₀	0.01	0.01	15	No
PM _{2.5}	0.01	0.01	10	No
NO _x	1.69	1.69	40	No
SO ₂	0.001	0.001	40	No
CO	0.23	0.23	100	No
Ozone (VOC)	0.01	0.01	40	No
Lead	0	0	0.6	No
CO ₂ e	192	192	75,000	No

1.4 Description of notifications and applications included in this action

Table 12. Notifications and applications included in this action

Date received	Application/Notification type and description
03/22/2010	Administrative Amendment (IND20100002)
11/26/2012	Administrative Amendment (IND20120001)
02/02/2011	Administrative Amendment (IND20110001)
05/21/2010	Administrative Amendment (IND20100005)
03/07/2014	Administrative Amendment (IND20140001)

Date received	Application/Notification type and description
05/02/2008	Administrative Amendment (IND20080001)
01/26/2010	Administrative Amendment (IND20100001)
08/01/2012	Major Amendment (IND20120005)
06/18/2020	Major Amendment (IND20200001)
05/13/2008	Major Amendment (IND20080004)
06/27/2013	Major Amendment (IND20130001)
12/15/2021	Major Amendment (IND20210002)
10/15/2013	Major Amendment (IND20130001)
09/29/2021	Minor Amendment (IND20210001)
11/21/2016	Minor Amendment (IND20160002)
04/10/2008	Minor Amendment (IND20080002)
03/12/2024	Minor Amendment (IND20240002)
11/03/2023	Minor Amendment (IND20230005)
04/30/2012	Minor Amendment (IND20120002)
03/27/2023	Minor Amendment (IND20230002)
04/23/2018	Minor Amendment (IND20180001)
09/19/2016	Minor Amendment (IND20160001)
12/20/2006	Minor Amendment (IND20060002)
06/06/2008	Minor Amendment (IND20080003)
11/29/2006	Minor Amendment (IND20060001)
09/20/2017	Minor Amendment (IND20170001)
08/25/2022	Notification of Replacement of Unit (IND20220002)
02/18/2022	Notification of Replacement of Unit (IND20220001)
03/10/2011	Notification of Replacement of Controls (IND20110007)
04/25/2011	Notification of Replacement of Controls (IND20110008)
12/20/2010	Notification of Replacement of Controls (IND20100010)
08/22/2007	Part 70 Reissuance (IND20070001) with supplemental information received 6/2/2025, 11/21/2025, and 5/5/2026

1.5 Facility emissions

Table 13. Total facility potential to emit summary

	PM tpy	PM ₁₀ tpy	PM _{2.5} tpy	SO ₂ tpy	NO _x tpy	CO tpy	CO ₂ e tpy	VOC tpy	All HAPs tpy
Total facility limited potential emissions	18,663	9,825	2,990	4,614	8,604	2,931	2,385,908	432	240
Total facility actual emissions (2025)	5,541	2,926	2,172	1,307	6,978	447	1,229,151	61.4	*

*Not reported in Minnesota emission inventory.

Table 14. Facility classification

Classification	Major	Synthetic minor/area	Minor/Area
New Source Review	X		
Part 70	X		
Part 63	X		

1.6 Changes to permit

The MPCA has a combined operating and construction permitting program under Minnesota Rules Chapter 7007, and under Minn. R. 7007.0800, the MPCA has authority to include additional requirements in an operating permit. The following changes to the permit are made through this permit action:

- The permit has been updated to reflect current MPCA templates and standard citation formatting;
- Completed requirements and the requirements for equipment that has been removed have been deleted;
- Subject item details have been updated based on the equipment that was actually installed; Some requirements have been reordered or moved to help with clarity (i.e., similar requirements are grouped);
- CAM has been added as discussed in Section 2.7 and Table 15 of this TSD;
- Trial burn language at the allowable fuels requirement for all five rotary kilns has been updated to require fuels to be allowable under 40 CFR pt. 241. The updated requirement also requires Minntac to submit a major amendment before a trial burn.
- Control efficiency limits for particulate matter less than 2.5 microns were added to the permit where the Permittee wishes to take credit for the operation of those controls in limiting potential to emit and the calculation of actual emissions;
- The insignificant activities for the facility have been updated to reflect the current activities on site as well as to reflect changes to these rules since the last permit was issued;

Additionally, the following subject-item-level changes have been made

- Total Facility
 - Added requirement banning the use of TCE per Minn. Stat. 116.385
 - Requirements to submit limits and other conditions to be incorporated into a Regional Haze State Implementation plan have been removed. The U.S. EPA finalized regional haze Federal Implementation plan requirements which have been incorporated in the permit.
 - Requirements related to retroactive PSD have been removed. See section 3.3 of this TSD for more details
 - Requirements related to operating CEMS have been moved to appropriate groups containing limits for which CEMS is a compliance demonstration.
 - Requirements related to calibration of CEMS have been moved to COMGs 73-77.
- GP 001 – Pre-1977 heating boilers
 - Requirements have been moved to individual units to match Tempo organization standards, and the group was removed.
- GP 002 – Post-1977 heating boilers
 - Requirements have been moved to individual units to match Tempo organization standards, and the group was removed.
- GP 003 – Panfeeders (Pre-1969)
 - Requirements have been moved to individual units to match Tempo organization standards, and the group was removed.
- GP 004 – Zinc Melt furnaces and miscellaneous ovens (Pre-1969)
 - Requirements have been moved to individual units to match Tempo organization standards, and the group was removed.
- GP 005 – Conveyor Transfer points

- Requirements have been moved to individual units to match Tempo organization standards, and the group was removed.
 - Control equipment requirements have been moved to the specific control equipment to match standard formatting.
- GP 006 – Stationary internal combustion engines
 - Requirements have been moved to individual units to match Tempo organization standards, and the group was removed.
- GP 007 – Coal Handling Sources
 - Requirements have been moved to individual units to match Tempo organization standards, and the group was removed.
- GP 009 – Agglomerator Line 3
 - Requirements have been moved to individual units to match Tempo organization standards, and the group was removed.
 - Limits applying to all five agglomerator lines have been moved to new group COMG 37 – Regional Haze and Facility-wide NOx limits.
 - Control equipment requirements have been moved to the specific control equipment to match standard formatting.
- GP 010 – Agglomeration Lines 4 & 5
 - Requirements have been moved to individual units to match Tempo organization standards, and the group was removed.
 - Limits applying to all five agglomerator lines have been moved to new group COMG 37 – Regional Haze and Facility-wide NOx limits
 - Control equipment requirements have been moved to the specific control equipment to match standard formatting.
- GP 011 – Agglomeration Line 6 & 7
 - Requirements have been moved to individual units to match Tempo organization standards, and the group was removed.
 - Limits applying to all five agglomerator lines have been moved to new group COMG 37 – Regional Haze and Facility-wide NOx limits.
 - Control equipment requirements have been moved to the specific control equipment to match standard formatting.
- GP 012 – Pre-1969 ore transfer points around crushers
 - Requirements have been moved to individual units to match Tempo organization standards, and the group was removed.
 - Control equipment requirements have been moved to the specific control equipment to match standard formatting.
- GP 013 – Post-1969 ore transfer points around crushers
 - Requirements have been moved to individual units to match Tempo organization standards, and the group was removed.
 - Control equipment requirements have been moved to the specific control equipment to match standard formatting.
- GP 014 – Pre-1969 secondary crushers
 - Requirements have been moved to individual units to match Tempo organization standards, and the group was removed.
 - Control equipment requirements have been moved to the specific control equipment to match standard formatting.
- GP 015 – Pre-1969 tertiary crushers
 - Requirements have been moved to individual units to match Tempo organization standards, and the group was removed.
 - Control equipment requirements have been moved to the specific control equipment to match standard formatting.
- GP 016 – Post-1969 secondary crushers

- Requirements have been moved to individual units to match Tempo organization standards, and the group was removed.
 - Control equipment requirements have been moved to the specific control equipment to match standard formatting.
- GP 017 – Post-1969 secondary crushers
 - Requirements have been moved to individual units to match Tempo organization standards, and the group was removed.
 - Control equipment requirements have been moved to the specific control equipment to match standard formatting.
- GP 018 – Post-1969 tertiary crushers
 - Requirements have been moved to individual units to match Tempo organization standards, and the group was removed.
 - Control equipment requirements have been moved to the specific control equipment to match standard formatting.
- At all five kilns, emission units related to different parts of the kiln have been removed, leaving only emission units identified as Rotary Kiln. Each kiln is now comprised of one emission unit. The emission units removed were identified in the previous permit as Traveling Grate, Recoup System Air, and Pellet Cooler Secondary air
- Coarse Crusher emission units have been consolidated to one emission unit for each step (EQUI 47 for Step I, EQUI 72 for Step II, and EQUI 48 for Step III). Previously, each dump pocket at a crusher was considered an emission unit. EU 014, EU 016, EU 018, EU 019 and EU 020 have been removed from the permit.
- Coal unloading equipment EU367 – EU382 has been removed from the permit because the emission units no longer exist at the facility.
- COMG 37 has been added to house limits applicable to all five lines.
- COMG 38 has been added to house limits applicable to lines 6 and 7.
 - Recordkeeping for annual VOC and CO limits has been updated to be more enforceable.
- GP 029 – Taconite MACT has been removed and, in its place, the following groups have been added to list 40 CFR pt. 63, subp. RRRRR (Taconite MACT) requirements to applicable subject items in the permit
 - COMG 39 has been added to house requirements for units under the ore crushing and handling affected source type.
 - COMG 40 has been added to house Taconite MACT requirements for units under the finished pellet handling affected source type.
 - COMG 41 has been added to house Taconite MACT requirements for fugitive sources
 - Taconite MACT requirements have been added to all five kilns individually (EQUI 3, EQUI 146, EQUI 179, EQUI 279, EQUI 280).
 - Taconite MACT requirements have been added to controls individually, as applicable.
 - COMG 42 – COMG 72, and COMG 78 have been added to list Taconite MACT testing requirements.
- COMG 73 – COMG 77 have been added to house CEMS requirements for each line.
- Requirements for applicable federal standards have been added to all emergency generators. Refer to Section 2.3 and 2.4 of this TSD for more details.
- The Limestone Conveyor Transfer 2 (EQUI 276 or EU 395) and the Limestone Dump Pocket (EQUI 277 or EU 393) migrated to the Tempo database with the incorrect subject item designation and were recreated as EQUI 704, and EQUI 705, respectively.
- NSPS OOO requirements have been added to EQUI 275, EQUI 704, and EQUI 705. See section 2.3 of this TSD for more details.
- TREA 268, Road Dust Suppression, has been added to the permit. Minntac has included road dust suppression activities in their fugitive dust control plan that qualify for an 80% control efficiency on

a 24-hour basis and 90% for an annual basis according to the MPCA's Unpaved Haul Road Memo.

2. Regulatory and/or statutory basis

2.1 New source review (NSR)

The facility is an existing major source under New Source Review regulations. This permit does not change this status. This permit authorizes numerous modifications as described in section 1.3 of this TSD. The emissions increase of all modifications are below NSR significant emission rates. The installation of tertiary crushers EQUI 673, EQUI 674, and EQUI 675 require the use of controls and their respective control efficiencies in order for each of those modifications to remain below PSD major modification thresholds for PM, PM₁₀, and PM_{2.5}. Title I limits to avoid PSD major modification requiring venting to controls have been added to the permit at these emission units and respective controls.

2.2 Part 70 permit program

The facility is a major source under the Part 70 permit program.

2.3 New source performance standards (NSPS)

Minntac meets the definition of "Nonmetallic Mineral Processing Plant" under 40 CFR pt. 60, subp. OOO, Standards of Performance for Nonmetallic Mineral Processing Plants (NSPS OOO) because it contains equipment that processes limestone, which is included in the definition of nonmetallic mineral under 40 CFR § 60.671. Pursuant to 40 CFR § 60.670(e), EQUI 275, EQUI 704, and EQUI 705 are subject to the requirements of NSPS OOO because U.S. Steel commenced construction of those affected facilities after August 31, 1983. All other limestone equipment at Minntac commenced construction prior to that date and are not subject to NSPS OOO requirements. Additionally, contractors may perform operations at the site that are subject to NSPS OOO; therefore requirements are included at FUGI 36 – Contractor activities.

40 CFR pt. 60, subp. Y, Standards of Performance for Coal Preparation Processing Plants does not apply to EQUI 684 and EQUI 685, the coal receiving hopper and coal conveyor. Pursuant 40 CFR § 60.250(a), the requirements of NSPS subp. Y apply only to affected facilities in coal preparation and processing plants. 40 CFR § 60.250(a) defines a coal preparation and processing plant as "any facility which prepares coal by one or more of the following processes: breaking, crushing, screening, wet or dry cleaning, and thermal drying." U.S. Steel has stated that coal burned at Minntac would not be subject to any of these processes as they would buy coal already designed to meet the requirements of the rotary kilns and not subject to any further processing other than unloading and conveying. Therefore, NSPS Y does not apply to coal handling operations at Minntac and EQUI 684 and EQUI 685 are subject to Minnesota's Industrial Process Equipment Rule only.

Minntac meets the definition of "Metallic Mineral Processing Plant" under 40 CFR pt. 60, subp. LL, Standards of Performance for Metallic Mineral Processing Plants (NSPS LL) because it contains equipment that produces metallic mineral concentrates from ore (40 CFR § 60.381). Pursuant to 40 CFR § 60.380, EQUI 46, EQUI 273, and EQUI 673-675 are subject to the requirements of NSPS LL because they are affected facilities in a metallic mineral processing plant all of which commenced construction after August 24, 1982. The emission units listed above include the following affected facilities listed under 40 CFR § 60.380: crushers, and conveyor belt transfer points. Additionally, contractors may perform operations at the site that are subject to NSPS LL; therefore requirements are included at FUGI 36 – Contractor activities.

Finished pellet conveyors transfer points EQUI 697-702 were constructed after August 24, 1982, but are not subject to the requirements of NSPS LL. Pursuant to the 40 CFR § 60.381 definition of conveyor belt transfer point, conveyor belts where the metallic mineral is being transferred to a stockpile are not an affected source.

Minntac has three emergency engines (EQUI 672, EQUI 703, EQUI 706) subject to 40 CFR pt. 60, subp. IIII, Standards of Performance for Station Compression Ignition Internal Combustion Engines (NSPS IIII). Pursuant to 40 CFR § 60.4200(a)(1)(i), these engines are subject to requirements of NSPS IIII because they are compression ignition internal combustion engines that commenced construction after July 11, 2006, and are not fire pump engines.

2.4 National emission standards for hazardous air pollutants (NESHAP)

Minntac is a major source of HAPs under 40 CFR Part 63.

Ore crushing and handling, pellet handling, the indurating furnace, and fugitive emissions at Minntac are subject to 40 CFR pt. 63, subp. RRRRR, National Emission Standards for Hazardous Air Pollutants for Taconite Iron Ore processing. All of the affected sources at the facility were constructed prior to December 18, 2002, as defined in 40 CFR § 63.9582(d). The facility includes several individual ore crushing emissions units that were constructed after December 18, 2002. However, these emissions units are not considered to be a new affected source because the MACT defines affected sources as a collection of equipment as opposed to individual emissions units. The following excerpt from the rule preamble (67 FR 77562) clarifies the distinction between an emission unit and affected source and when new source MACT requirements apply:

“When establishing the affected sources for these proposed standards, we recognized that selecting a narrow definition of affected source (e.g., each crusher, conveyor, and bin) would cause new source MACT requirements to be triggered more frequently than if the affected source were defined as a collection of equipment (e.g., all ore crushing and handling emission units). We do not believe that the replacement of an individual emission unit that is part of a larger integrated process should trigger new source MACT. Therefore, we established affected sources for ore crushing and handling and finished pellet handling that represent collections of equipment, rather than individual units.”

Fugitive emissions must be operated and controlled as required in an approved fugitive dust control plan which is included as an appendix to the permit.

Minntac operates boilers that are affected sources under 40 CFR pt. 63, subp. DDDDD, National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters. EQUI 196, EQUI 197

Minntac has numerous engines that are affected sources under 40 CFR pt. 63, subp. ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (NESHAP ZZZZ). EQUI 688 and EQUI 690 are affected sources because they are existing, emergency, compression ignition engines rated less than or equal to 500 bhp, located at a major source of HAPs.

EQUI 274, EQUI 689, EQUI 691, EQUI 692, EQUI 693, EQUI 694, EQUI 695, and EQUI 696 are affected sources under NESHAP ZZZZ because they are existing emergency engines rated greater than 500 bhp, located at a major source of HAPs. However, pursuant to 40 CFR § 63.6590(b)(3), these engines do not have to meet the requirements of NESHAP ZZZZ.

EQUI 672 and EQUI 703 are affected sources under NESHAP ZZZZ because they are new compression ignition RICE rated less than 500 bhp at a major source of HAPs. However, pursuant to 40 CFR § 63.6590(c) Minntac will meet the requirements of NESHAP ZZZZ by meeting the requirements of NSPS IIII.

EQUI 671 and EQUI 706 are affected sources under NESHAP ZZZZ because they are new, emergency, stationary RICE rated greater than 500 bhp located at a major source of HAPs. However, because these engines meet the criteria of 40 CFR § 63.6590(b)(1)(i), only the initial notification requirements of NESHAP ZZZZ apply.

2.5 Regional Haze and Federal Implementation Plan (FIP) requirements

The regional haze program identifies existing facilities in Class I areas that can cause or contribute to visibility impairment. EPA promulgated a Taconite Regional Haze FIP that includes operational requirements and emission limits for taconite furnaces in Minnesota. The facility is subject to regional haze requirements under 40 CFR Section 52.1235 as described below in Section 3.7 of this TSD.

FIP requirements meet the definition of “Applicable Requirement” as defined in Minn. R. 7007.0100, subp. 7(V): “any standard or other requirement established under section 169A (Visibility Protection for Federal Class I Areas) or 169B (Visibility) of the act including emission limits established in the determination of best available retrofit technology.” Compliance methods for all applicable requirements must be included in permits issued by MPCA, per Minn. R. 7007.0800, subp. 2(A).

2.6 Mercury Emission Reduction Plan

Minn. R. 7007.0502 requires the owners or operators of a ferrous mining or processing facility to prepare a mercury reduction plan that addresses mercury emission reductions for each indurating furnace or kiln of a taconite processing facility or the rotary hearth furnace of a direct-reduced iron facility. Under Minn. R. 7007.0502, subp. 6(A), ferrous mining or processing facilities must reduce mercury emissions by 72% from 2008 or 2010 emission levels, whichever is greater as determined by the MPCA, by January 1, 2025. Minntac is subject to these Mercury Emission Reduction Plan requirements.

U.S. Steel submitted its proposed mercury reductions emissions plan on 12/20/2018 which noted mercury reductions of 72% was not technically feasible. The MPCA responded on 5/29/2020 requesting updates to the plan’s baseline emission calculations, to re-evaluate reduction options, and provide additional data on source emissions. U.S. Steel responded to that request on 7/29/2020 and 8/31/2020. The MPCA sent U.S. Steel a mercury reduction plan deficiency letter on 1/6/2023 and requested that U.S. Steel submit a revised mercury reduction plan within 180 days of the effective date of the Risk and Technology Review (RTR) revisions to NESHAP RRRRR. U.S. Steel revised and submitted the updated mercury reductions emissions plan on August 30, 2024. The MPCA is actively reviewing this proposed plan.

2.7 Compliance assurance monitoring (CAM)

The table below lists the sources subject to CAM, the control equipment used, whether the source is a large or other pollutant specific emission unit (PSEU), and the pollutants triggering CAM.

CAM applies to emission units meeting the following criteria:

1. The emission unit is subject to a limitation or standard for an air pollutant regulated by Part 70;
2. Compliance with the applicable limit or standard is achieved through the use of add-on control equipment; and
3. The emission unit has pre-control potential emissions of the applicable regulated air pollutant that are equal to or greater than 100 percent of the relevant Part 70 major source threshold for that pollutant.

Many units at the facility are exempt from CAM for limitations from NESHAP RRRRR, as this is a post-November 15, 1990 NESHAP, and units subject to post-November 15, 1990 NESHAPs are exempt from CAM pursuant to 40 CFR § 64.2(b)(1)(i).

Only two emission units at Minntac include limits on PM₁₀ and PM_{2.5}. If, based on the NAAQS demonstration requirement included in the permit at TFAC 2, the Permittee must limit PM₁₀ or PM_{2.5} emissions to demonstrate NAAQS attainment, additional units may become subject to CAM at that time.

Table 15. CAM summary

Unit	Control	CAM applicability	Pollutant(s)	Emission Limitation Basis
EQUI 146 – Line 3 Rotary Kiln	TREA 224 – Wet Scrubber	Large	SO ₂	Direct Heating Equipment Rule, Regional Haze FIP
EQUI 279 – Line 4 Rotary Kiln	TREA 37 – Wet Scrubber	Large	SO ₂	Direct Heating Equipment Rule, Regional Haze FIP
EQUI 280 – Line 5 Rotary Kiln	TREA 38 – Wet Scrubber	Large	SO ₂	Direct Heating Equipment Rule, Regional Haze FIP
EQUI 3 – Line 6 Rotary Kiln	TREA 143 – Wet Scrubber	Large	SO ₂	Direct Heating Equipment Rule, Regional Haze FIP
EQUI 179 – Line 7 rotary Kiln	TREA 151 – Wet Scrubber	Large	SO ₂	Direct Heating Equipment Rule, Regional Haze FIP
EQUI 52	TREA 219 – Fabric Filter	Other	PM ₁₀	Limit to avoid PSD major modification
EQUI 53	TREA 220 – Fabric Filter	Other	PM ₁₀	Limit to avoid PSD major modification

2.8 Regulatory Overview

Table 16. Regulatory overview of facility

Subject item*	Applicable regulations	Rationale
TFAC 2 - Air Quality Total Facility	Minn. R. 7007.0800, subp. 2, 4 and 5	Contractor Activities: The Permittee uses contractor activities at the facility. Contractor activity language has been updated to meet current MPCA policy. The purpose of the updated contractor language is to ensure 1) the source analysis takes place, 2) recordkeeping of the analysis occurs, and 3) the Permittee is directed to obtain a permit amendment if needed.
	Minn. R. 7007.0502	Mercury Emissions Reduction Plan: The facility is subject to a mercury emissions reduction plan. The permit contains requirements for implementation plans, reports, and modifications. '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. 2(A) & (B), Minn. R. 7009.0020-7009.0090, Minn. Stat. 116.07, subd. 4a(a)	National Ambient Air Quality Standards and Minnesota Ambient Air Quality Standards (NAAQS/MAAQs): The Permittee must demonstrate compliance with the applicable PM ₁₀ , and PM _{2.5} standards.

Subject item*	Applicable regulations	Rationale
COMG 37 – Regional Haze and Facility-Wide NO _x limits	Title I Condition: 40 CFR § 52.21(p)(visibility)	PSD. The permit carries forward requirements taken as a result of the Class I Visibility Impacts analysis done as part of the backwards-looking PSD analysis for the installation of auxiliary burners in the rotary kilns between 1987 – 1989. Refer to the TSD of Permit 13700005 – 005 for additional information on these limits.
	40 CFR 52.1235	Regional Haze. This permit action incorporates SO ₂ and NO _x limits from the Taconite Regional Haze FIP. Like the PSD visibility limits, the FIP limits apply in aggregate to all five lines; therefore, they are included at COMG 37.
COMG 38 – Line 6 and 7 Combined Limits	Title I Condition: Avoid major modification under 40 CFR § 52.21	PSD. The permit carries forward limits on Lines 6 and 7 from a 1997 permit action taken to avoid major modification for VOC emissions related to wood waste combustion. The limit is a 12-month rolling sum due to unpredictable variations in wood waste combustion.
COMG 39 – Taconite MACT Ore Crushing and Handling	40 CFR pt. 63, subp. RRRRR; Minn. R. 7011.8030	National Emission Standards for Hazardous Air Pollutants: Taconite Iron Ore Processing. The emission units in COMG 39 comprise the existing ore crushing and handling affected sources (constructed before 12/18/2002) at a major source of HAP emissions.
COMG 40 – Taconite MACT finished pellet handling	40 CFR pt. 63, subp. RRRRR; Minn. R. 7011.8030	National Emission Standards for Hazardous Air Pollutants: Taconite Iron Ore Processing. The emission units in COMG 40 comprise the existing finished pellet handling affected sources (constructed before 12/18/2002) at a major source of HAP emissions.
COMG 41 – Taconite MACT fugitive sources	40 CFR pt. 63, subp. RRRRR; Minn. R. 7011.8030	National Emission Standards for Hazardous Air Pollutants: Taconite Iron Ore Processing. The emission units in COMG 41 are fugitive dust emission sources at a major source of HAP emissions.
COMG 42, COMG 43, COMG 44, COMG 45, COMG 46, COMG 47, COMG 48, COMG 49, COMG 50, COMG 51, COMG 52, COMG 53, COMG 54, COMG 55 – Step I/II ore crushing handling MACT testing groups	40 CFR pt. 63, subp. RRRRR; Minn. R. 7011.8030	National Emission Standards for Hazardous Air Pollutants: Taconite Iron Ore Processing. These are performance testing groups all consisting of existing (constructed before 12/18/2002) ore crushing and handling emission units that are part of the Step I/II ore crushing and handling operations affected source.
COMG 56, COMG 57, COMG 58, COMG 59, COMG 60, COMG 61, COMG 63, COMG 63, COMG 64, COMG 65, COMG 66, COMG 67, COMG 68 – Step III ore crushing handling MACT testing groups	40 CFR pt. 63, subp. RRRRR; Minn. R. 7011.8030	National Emission Standards for Hazardous Air Pollutants: Taconite Iron Ore Processing. These are performance testing groups all consisting of existing (constructed before 12/18/2002) ore crushing and handling emission units that are part of the Step III ore crushing and handling operations affected source.
COMG 69, COMG 70, COMG 71 – Step I/II pellet handling MACT testing groups	40 CFR pt. 63, subp. RRRRR; Minn. R. 7011.8030	National Emission Standards for Hazardous Air Pollutants: Taconite Iron Ore Processing. These are performance testing groups all consisting of existing (constructed before 12/18/2002) pellet handling emission units that are part of the Step I/II pellet handling operations affected source.

Subject item*	Applicable regulations	Rationale
COMG 72 – Step III pellet handling conveyors MACT testing group	40 CFR pt. 63, subp. RRRRR; Minn. R. 7011.8030	National Emission Standards for Hazardous Air Pollutants: Taconite Iron Ore Processing. The emission units in COMG 72 comprise a performance test group consisting of existing (constructed before 12/18/2002) pellet handling emission units that are part of the Step III pellet handling operations affected source.
COMG 73, COMG 74, COMG 75, COMG 76, COMG 77 – Rotary Kiln CEMS	40 CFR § 52.1235	Taconite Regional Haze FIP CEMS operation requirements.
	Minn R. 7017	Minnesota CEMS requirements.
COMG 78 – Step III grate feeds MACT testing group	40 CFR pt. 63, subp. RRRRR; Minn. R. 7011.8030	National Emission Standards for Hazardous Air Pollutants: Taconite Iron Ore Processing. The emission units in COMG 72 comprise a performance test group consisting of existing (constructed before 12/18/2002) pellet handling emission units that are part of the Step III pellet handling operations affected source.
EQUI 3, EQUI 146, EQUI 179, EQUI 279, EQUI 280 – Rotary Kilns	40 CFR pt. 63, subp. RRRRR; Minn. R. 7011.8030	National Emission Standards for Hazardous Air Pollutants: Taconite Iron Ore Processing. These five rotary Kilns are existing indurating furnaces (constructed before 12/18/2002) at a major source of HAP emissions.
	40 CFR § 52.21(j)(BACT) & Minn. R. 7007.3000	PSD. This permit carries forward individual Best Available Control Technology (BACT) limits on CO, VOC, and Fluorides at each kiln. The limits are based on the BACT analysis conducted for permit action 13700005 – 005. This permit also adds a temperature limit at all five kilns for kiln exit temperature, which is used as a compliance demonstration for VOC and CO BACT limits.
	Minn. R. 7011.0610	Minnesota Standards of Performance for Direct Heating Equipment. • Construction of the unit was on or after July 9, 1969; • The unit burns liquid, solid, and gaseous fuel; • The facility is located outside of the Twin Cities; and • The facility has greater than 250 MMBtu/hr of indirect and direct heating equipment. The equipment is located outside of the Twin Cities and Duluth and meets all of the criteria specific in Minn. R. 7011.0715, subp. 3.
EQUI 5 - EQUI 42, EQUI 47 - EQUI 104, EQUI 122 - EQUI 123, EQUI 136 - EQUI 144, EQUI 147, EQUI 149 - EQUI 178, EQUI 206 - EQUI 254, EQUI 269, EQUI 278, EQUI 281, EQUI 283 - EQUI 310, EQUI 313 - EQUI 316, EQUI 318 - EQUI 348, EQUI 351 - EQUI 372, EQUI 374, EQUI 375, EQUI 377 - EQUI 395	Minn. R. 7011.0715, subp. 3	Standards of Performance for post-1969 Industrial Process Equipment. Equipment for which there is no other promulgated performance standard is subject to the opacity and PM limits in this rule. • Construction of the unit was on or after July 9, 1969. • The equipment is located outside of the Twin Cities and Duluth and meets all of the criteria specific in Minn. R. 7011.0715, subp. 3.
EQUI 46, EQUI 273 – L4 Pellet Screen Fine Belt	40 CFR pt. 63, subp. LL; Minn. R. 7011.2700	Standards of Performance for Metallic Mineral Processing Plants. EQUI 46 and EQUI 273 are screens at a metallic mineral processing plant located at a major source of HAPs, constructed after August 24, 1982.

Subject item*	Applicable regulations	Rationale
EQUI 52, EQUI 53 – Conveyor Transfer 005	Title I Condition: Avoid Major Modification under 40 CFR § 52.21(b)(1)(i) & Minn. R. 7007.3000	Limits to avoid PSD. This permit carries forward limits from a 1991 permit action that imposed PM and PM10 limits on EQUI 52 and EQUI 53 to reduce PTE and avoid PSD major modification thresholds.
	Minn. R. 7011.0715, subp. 3	Standards of Performance for post-1969 Industrial Process Equipment. Equipment for which there is no other promulgated performance standard is subject to the opacity and PM limits in this rule. • Construction of the unit was on or after July 9, 1969. • The equipment is located outside of the Twin Cities and Duluth and meets all of the criteria specific in Minn. R. 7011.0715, subp. 3.
EQUI 108 - EQUI 118, EQUI 124 - EQUI 127, EQUI 148, EQUI 180 - EQUI 191, EQUI 267, EQUI 268, EQUI 270, EQUI 350	Minn. R. 7011.0715, subp. 2	Standards of Performance for post-1969 Industrial Process Equipment. Equipment for which there is no other promulgated performance standard is subject to the opacity and PM limits in this rule. Construction of the unit was on or after July 9, 1969.
EQUI 196 - EQUI 198 – Boilers constructed before 1977	40 CFR pt. 63, subp. DDDDD; Minn. R. 7011.7050	NESHAP for Industrial, Commercial, and Institutional Boilers and Process Heaters. Applicability criteria include: • the facility is a major source of HAP emissions; • the units are existing; • the units burn gas 1 fuel (natural gas only); • the units use an oxygen trim system; and • the units have a heat input capacity greater than or equal to 10 MMBtu/hr.
	Minn. R. 7011.0510	Standards of Performance for Existing Indirect Heating Equipment. Determination of applicable limit from rule: • the units were constructed before January 31, 1977; • the units burn gaseous and liquid fuels; • the facility is located outside the cities in Table I of the rule; • the individual unit capacities are less than 250 MMBtu/hr; and • the facility has greater than 250 MMBtu/hr of direct and indirect heating equipment.
EQUI 199 - EQUI 202 – Boilers constructed after 1977	40 CFR pt. 63, subp. DDDDD; Minn. R. 7011.7050	NESHAP for Industrial, Commercial, and Institutional Boilers and Process Heaters. Applicability criteria include: • the facility is a major source of HAP emissions; • the units are existing; • the units burn gas 1 fuel (natural gas only); • the units use an oxygen trim system; and • the units have a heat input capacity greater than or equal to 10 MMBtu/hr.

Subject item*	Applicable regulations	Rationale
	Minn. R. 7011.0515	Standards of Performance for Existing Indirect Heating Equipment. Determination of applicable limit from rule: • the units were constructed after January 31, 1977; • the units burn gaseous and liquid fuels; • the facility is located outside the cities in Table I of the rule; • the individual unit capacities are less than 250 MMBtu/hr; and • the facility has greater than 250 MMBtu/hr of direct and indirect heating equipment.
EQUI 255 – Heaters	Minn. R. 7011.0610	Standards of Performance for Direct Heating Equipment. • Construction of the unit was on or after July 9, 1969; • The unit burns gaseous fuel; • The facility is located outside of the Twin Cities; and • The facility has greater than 250 MMBtu/hr of indirect and direct heating equipment.
EQUI 266 – Hill Wood Products System	Minn. R. 7011.0715	Standards of Performance for post-1969 Industrial Process Equipment. Equipment for which there is no other promulgated performance standard is subject to the opacity and PM limits in this rule. • Construction of the unit was on or after July 9, 1969. • The equipment is located outside of the Twin Cities and Duluth and meets all of the criteria specific in Minn. R. 7011.0715, subp. 3.
	Title I Condition: Avoid Major Modification under 40 CFR § 52.21(b)(2) & Minn. R. 7007.3000	Limits to avoid PSD. This permit carries forward limits from a 1991 permit action that imposed PM and PM10 limits on EQUI 266 to reduce PTE and remain below PSD major modification thresholds.
EQUI 274, EQUI 689, EQUI 691, EQUI 692, EQUI 693, EQUI 694, EQUI 695, EQUI 696 – Existing Emergency Engines > 500 bhp	40 CFR pt. 63, subp. ZZZZ; Minn. R. 7011.8150	NESHAP for Stationary Reciprocating Internal Combustion Engines. Applicability criteria include: • Major source; • Construction commenced before 12/19/2002; • Engine capacity >500 bhp.; and • Emergency use. These engines meet 40 CFR § 63.6590(a)(1)(i) and they are covered by the "Stationary RICE subject to limited requirements" in 40 CFR § 63.6590(b)(3). Under 40 CFR § 63.6590(b)(3), the engines do not have to meet the requirements of 40 CFR pt. 63, subp. ZZZZ.
	Minn. R. 7011.2300	Standards of Performance for Stationary Internal Combustion Engines. Fuel limited to diesel only, by design. Sulfur content of fuel limited to 0.0015 percent by weight.
EQUI 275, EQUI 704, EQUI 705 – Limestone Handling Subject to NSPS OOO	40 CFR pt. 60, subp. OOO; Minn. R. 7011.3550	New Source Performance Standards for Nonmetallic Mineral Processing Plants. These emission units are involved in handling of nonmetallic minerals as defined in rule. The units were constructed after August 31, 1983. The units are enclosed and vent to fabric filters.
	Title I Condition: Avoid Major Modification under 40 CFR § 52.21(b)(2) & Minn. R. 7007.3000	Limits to avoid PSD. This permit carries forward requirements from a 1997 permit action to vent these units to fabric filters to reduce PTE to avoid classification as PSD major modification.

Subject item*	Applicable regulations	Rationale
EQUI 282, EQUI 311, EQUI 312, EQUI 317, EQUI 376 – Zinc Melt Furnaces	Minn. R. 7011.0610	Standards of Performance for Direct Heating Equipment. • Construction of the unit was on or after July 9, 1969; • The unit burns gaseous fuel; • The facility is located outside of the Twin Cities; and • The facility has greater than 250 MMBtu/hr of indirect and direct heating equipment.
EQUI 373 – Electric Shop Curing oven	Minn. R. 7011.0610	Standards of Performance for Direct Heating Equipment. • Construction of the unit was on or after July 9, 1969; • The unit burns gaseous fuel; • The facility is located outside of the Twin Cities; and • The facility has greater than 250 MMBtu/hr of indirect and direct heating equipment.
EQUI 671 – Diesel Emergency Generator, Concentrator	40 CFR pt. 60, subp. IIII; Minn. R. 7011.2305	NSPS for Stationary Compression Ignition Internal Combustion Engines. Applicability criteria include: • emergency engine (not a fire pump); • commenced construction date after July 11, 2005; • manufacture date after April 1, 2006; • engine output > 750 bhp and <= 3000 bhp; and • displacement less than 30 liters per cylinder.
	40 CFR pt. 63, subp. ZZZZ; Minn. R. 7011.8150	NESHAP for Stationary Reciprocating Internal Combustion Engines. Applicability criteria include: • Major source; • Construction commenced or after 12/19/2002; and • Engine capacity >500 bhp. The engine meets 40 CFR § 63.6590(a)(2)(i) and it is covered by the "Stationary RICE subject to limited requirements" in 40 CFR § 63.6590(b)(1)(i). Under 40 CFR § 63.6590(b)(1), the engine does not have to meet the requirements of 40 CFR pt. 63, subp. ZZZZ except the initial notification requirements in 40 CFR § 63.6645(f).
	Minn. R. 7011.2300	Standards of Performance for Stationary Internal Combustion Engines. Fuel limited to diesel only, by design. Sulfur content of fuel limited to 0.0015 percent by weight.
EQUI 672, EQUI 703	40 CFR pt. 60, subp. IIII; Minn. R. 7011.2305	NSPS for Stationary Compression Ignition Internal Combustion Engines. Applicability criteria include: • emergency engine (not a fire pump); • commenced construction date after July 11, 2005; • manufacture date after April 1, 2006; • engine output > 175 bhp and <= 300 bhp; and • displacement less than 30 liters per cylinder.
	40 CFR pt. 63, subp. ZZZZ; Minn. R. 7011.8150	NESHAP for Stationary Reciprocating Internal Combustion Engines. EQUI 672 and EQUI 703 are new affected sources subject to 40 CFR pt. 63, subp. ZZZZ. Under 40 CFR § 63.6590(c) the engine complies with the requirements 40 CFR pt. 63, subp. ZZZZ by complying with the requirements of 40 CFR pt. 60, subp. IIII and no further requirements apply under 40 CFR pt. 63, subp. ZZZZ.
	Minn. R. 7011.2300	Standards of Performance for Stationary Internal Combustion Engines. Fuel limited to diesel only, by design. Sulfur content of fuel limited to 0.0015 percent by weight.

Subject item*	Applicable regulations	Rationale
EQUI 673, EQUI 674, EQUI 675 – New Tertiary Crushers	Title I Condition: Avoid Major Modification under 40 CFR § 52.21(b)(2) & Minn. R. 7007.3000	Limits to avoid PSD. This permit establishes requirements to vent the new tertiary crushers to controls in order to remain below PSD major modification thresholds for PM, PM10, and PM2.5.
	40 CFR pt. 60, subp. LL; Minn. R. 7011.2700	Standards of Performance for Metallic Mineral Processing Plants. EQUI 673, EQUI 674, and EQUI 675 are crushers at a metallic mineral processing plant located at a major source of HAPs, constructed after August 24, 1982.
EQUI 676 – Clean up materials	Minn. R. 7011.0715	Standards of Performance for post-1969 Industrial Process Equipment. Equipment for which there is no other promulgated performance standard is subject to the opacity and PM limits in this rule. Construction of the unit was on or after July 9, 1969.
EQUI 678 - EQUI 683 – HPGR Grinding and conveying	Minn. R. 7011.0715	Standards of Performance for post-1969 Industrial Process Equipment. Equipment for which there is no other promulgated performance standard is subject to the opacity and PM limits in this rule. Construction of the unit was on or after July 9, 1969.
EQUI 684, EQUI 685 – Coal Handling Equipment	Minn. R. 7011.0715	Standards of Performance for post-1969 Industrial Process Equipment. Equipment for which there is no other promulgated performance standard is subject to the opacity and PM limits in this rule. Construction of the unit was on or after July 9, 1969.
EQUI 688, EQUI 690 – Existing emergency engines <= 500 bhp	40 CFR pt. 63, subp. ZZZZ; Minn. R. 7011.8150	NESHAP for Stationary Reciprocating Internal Combustion Engines. Applicability criteria include: • Major source; • Existing SI Engine; • Engine capacity <= 500 bhp; • Construction or reconstruction commenced before 6/12/2006; and • Emergency operation.
	Minn. R. 7011.2300	Standards of Performance for Stationary Internal Combustion Engines. Fuel limited to diesel only, by design. Sulfur content of fuel limited to 0.0015 percent by weight.
EQUI 706 - Reciprocating IC Engine	40 CFR pt. 60, subp. IIII; Minn. R. 7011.2305	NSPS for Stationary Compression Ignition Internal Combustion Engines. Applicability criteria include: • emergency engine (not a fire pump); • commenced construction date after July 11, 2005; • manufacture date after April 1, 2006; • engine output > 600 bhp and <= 750 bhp; and • displacement less than 30 liters per cylinder.
	40 CFR pt. 63, subp. ZZZZ; Minn. R. 7011.8150	NESHAP for Stationary Reciprocating Internal Combustion Engines. Applicability criteria include: • Major source; • Construction commenced or after 12/19/2002; and • Engine capacity >500 bhp. The engine meets 40 CFR § 63.6590(a)(2)(i) and it is covered by the "Stationary RICE subject to limited requirements" in 40 CFR § 63.6590(b)(1)(i). Under 40 CFR § 63.6590(b)(1), the engine does not have to meet the requirements of 40 CFR pt. 63, subp. ZZZZ except the initial notification requirements in 40 CFR § 63.6645(f).

Subject item*	Applicable regulations	Rationale
	Minn. R. 7011.2300	Standards of Performance for Stationary Internal Combustion Engines. Fuel limited to diesel only, by design. Sulfur content of fuel limited to 0.0015 percent by weight.
EQUI 707, EQUI 708, EQUI 709, EQUI 710, EQUI 711 – Lines 3-7 Waste Gas Cyclones	Minn. R. 7005.0100	Inherent process equipment: The cyclones are classified as inherent process equipment because they recover product from the gaseous stream and protect the wet scrubber fans
	Minn. R. 7007.0800, subp 2(A) & (B)	Operation limits and requirements to ensure consistent operations of the indurating furnace. Cyclone product recovery and consistent operation is assumed as part of the indurating furnace operations and emission rates. Therefore, operation limits, monitoring, and recordkeeping of the cyclones are required.
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 – Fugitive sources	Minn. R. 7011.0105	Minnesota Emission Standards for Visible Air Contaminants: Opacity limit for existing (before Jan 31, 1977) facilities. Material transfer, loading, unloading, handling, blasting, storage piles, truck traffic, and receiving sources.
FUGI 36 – Contractor Activities	Minn. R. 7007.0800 subps. 2, 4, 5, and 16;	Minntac utilizes contractors for various material handling and processing activities. The permit has requirements for tracking, throughput limits, monitoring, recordkeeping, and reporting of these activities. If the unit is subject to a federal standard (NESHAP/NSPS), the Permittee would need to ensure the contract complies with those standards.
TREA 37, TREA 38, TREA 143, TREA 151 TREA 224 – Kiln Scrubbers	40 CFR pt. 63, subp. RRRRR; Minn. R. 7011.8030	National Emission Standards for Hazardous Air Pollutants: Taconite Iron Ore Processing. TREAs 15, 16, 17, and 18 are wet scrubbers that are used to meet a PM emission limit contained in the rule.
	40 CFR pt. 64	Compliance Assurance Monitoring (CAM): • unit is subject to a limit or standard • compliance with limit achieved with controls • Uncontrolled PTE > 100% Part 70 major source threshold. The CAM plan is a TSD attachment.
	Minn. R. 7007.0800, subps. 2, 4, 5, and 14.	Wet Scrubber Control Equipment: Control efficiency and other operating parameter requirements to limit PM/PM10/PM2.5 PTE. Limits reflect that the units are total enclosures. Permit specifies that replacement wet scrubbers must meet the TREA requirements.
	Minn. R. 7017.2025	Approved Replicable Methodology (ARM): ARM language to pre-authorize a change/update to the control equipment operating parameters.
TREA 48-86, TREA 103, TREA 104, TREA	40 CFR pt. 63, subp. RRRRR; Minn. R. 7011.8030	National Emission Standards for Hazardous Air Pollutants: Taconite Iron Ore Processing. These are fabric filters that are used to meet a PM emission limit contained in the rule.

Subject item*	Applicable regulations	Rationale
107, TREA 108, TREA 112, TREA 113, TREA 120-127, TREA 132-134, TREA 138, TREA 139, TREA 146, TREA 147, TREA 172-193 – RRRRR Scrubbers	Minn. R. 7007.0800, subps. 2, 4, 5, and 14.	Wet Scrubber Control Equipment: Control efficiency and other operating parameter requirements to limit PM/PM10/PM2.5 PTE. Limits reflect that the units are total enclosures. Permit specifies that replacement baghouses must meet the TREA requirements.
	Minn. R. 7017.2025	Approved Replicable Methodology (ARM): ARM language to pre-authorize a change/update to the control equipment operating parameters.
TREA 89, TREA 97-102, TREA 110, TREA 111, TREA 130, TREA 136, TREA 137, TREA 145, TREA 211, TREA 214 – Bentonite Processing Fabric Filters	Minn. R. 7007.0800, subps. 2, 4, 5, and 14.	Fabric Filter Control Equipment: Control efficiency and other operating parameter requirements to limit PM/PM10/PM2.5 PTE. Limits reflect that the units are total enclosures. Permit specifies that replacement scrubbers must meet the TREA requirements.
	Minn. R. 7017.2025	Approved Replicable Methodology (ARM): ARM language to pre-authorize a change/update to the control equipment operating parameters.
TREA 90, TREA 214 – Limestone Dump pocket baghouses	Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000	Limits to Avoid PSD. This permit carries forward requirements from a 1997 permit action to operate baghouses and control PM/PM10 to limit PTE and avoid PSD major modification thresholds.
	Minn. R. 7007.0800, subps. 2, 4, 5, and 14.	Fabric Filter Control Equipment: Control efficiency and other operating parameter requirements to limit PM2.5 PTE. Limits reflect that the units are total enclosures. Permit specifies that replacement baghouses must meet the TREA requirements.
	Minn. R. 7017.2025	Approved Replicable Methodology (ARM): ARM language to pre-authorize a change/update to the control equipment operating parameters.
TREA 115-117, TREA 194-210, TREA 212, TREA 213, TREA 215-220, TREA 221-230 – RRRRR Fabric Filters (Cartridge Filters)	40 CFR pt. 63, subp. RRRRR; Minn. R. 7011.8030	National Emission Standards for Hazardous Air Pollutants: Taconite Iron Ore Processing. These are fabric filters that are used to meet a PM emission limit contained in the rule.
	Minn. R. 7007.0800, subps. 2, 4, 5, and 14.	Baghouse Control Equipment: Control efficiency and other operating parameter requirements to limit PM/PM10/PM2.5 PTE. Limits reflect that the units are total enclosures. Permit specifies that replacement baghouses must meet the TREA requirements.
	Minn. R. 7017.2025	Approved Replicable Methodology (ARM): ARM language to pre-authorize a change/update to the control equipment operating parameters.
TREA 217, TREA 231-265, TREA 269 – Replacement RRRRR Fabric Filters (Cartridge Filters)	Minn. R. 7007.0800, subp. 2(A)	Construction Authorization. Minntac is authorized to construct fabric filters TREAs 231-265, TREA 269 to replace existing scrubbers.
	40 CFR pt. 63, subp. RRRRR; Minn. R. 7011.8030	National Emission Standards for Hazardous Air Pollutants: Taconite Iron Ore Processing. These are fabric filters that are used to meet a PM emission limit contained in the rule.
	Minn. R. 7007.0800, subps. 2, 4, 5, and 14.	Baghouse Control Equipment: Control efficiency and other operating parameter requirements to limit PM/PM10/PM2.5 PTE. Limits reflect that the units are total enclosures. Permit specifies that replacement baghouses must meet the TREA requirements.
	Minn. R. 7017.2025	Approved Replicable Methodology (ARM): ARM language to pre-authorize a change/update to the control equipment operating parameters.
TREA 219, TREA 220 – Conveyor 005 transfer fabric filters	Title I Condition: Avoid Major Modification under 40 CFR § 52.21(b)(2) & Minn. R. 7007.3000	Limits to Avoid PSD. This permit carries forward requirements from a 1997 permit action to operate baghouses and control PM/PM10 to limit PTE and avoid PSD major modification thresholds.

Subject item*	Applicable regulations	Rationale
	Minn. R. 7007.0800, subps. 2, 4, 5, and 14.	Baghouse Control Equipment: Control efficiency and other operating parameter requirements to limit PM _{2.5} PTE. Limits reflect that the units are total enclosures. Permit specifies that replacement baghouses must meet the TREA requirements
	Minn. R. 7017.2025	Approved Replicable Methodology (ARM): ARM language to pre-authorize a change/update to the control equipment operating parameters.

*Location of the requirement in the permit (e.g., EQUI 1, STRU 2, etc.).

The language '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' refers to permit requirements that are established only under state law and are not established under or required by the federal Clean Air Act. The language is to clarify the distinction between permit conditions that are required by federal law and those that are required only under state law. State law-only requirements are not enforceable by the EPA or by citizens under the federal Clean Air Act but are fully enforceable by the MPCA and citizens under provisions of state law.

3. Technical information

3.1 Calculations of potential to emit (PTE) and Emissions increase analysis

Attachment 1 to this TSD contains a summary of the PTE of the Facility as well as detailed spreadsheets and supporting information prepared by the MPCA and the Permittee.

Ore handling and pellet handling:

Uncontrolled emissions for ore and pellet handling units are based on taconite ore processing emission factors from AP-42. Most ore and pellet handling units are controlled by either fabric filters or wet scrubbers. Controlled emission factors for particulates are generally based on performance test data with a safety factor built in. The taconite MACT dictates performance testing, monitoring, and recordkeeping to ensure compliance with the limits.

Indurating furnaces:

U.S. Steel operates five indurating furnaces at the Minntac facility. Lines 3, 4, and 5 furnaces (EQUI 146, EQUI 279, EQUI 280) are permitted to burn natural gas, biomass or fuel oil. Lines 6 and 7 (EQUI 3, EQUI 179) furnaces are permitted to burn natural gas, biomass, fuel oil, and coal. Wet scrubbers at each furnace control particulate matter emissions.

For all furnaces, the MPCA used recent performance tests to calculate VOC, CO and Fluoride emissions. The MPCA took all performance tests after installation of low-NO_x burners and found the 95% confidence limit of the mean of three new test runs in lb/long ton pellets produced. The results of this statistical method produced emission factors greater than the highest individual test run for all pollutants. The MPCA used the 95% UCL method because there were not enough data points for the average among PM test runs to be statistically significant. The 95% UCL is a value that the true distribution of data is less than or equal to with 95% confidence.

To calculate particulate matter PTE for the furnaces, U.S. Steel relied on the MACT limit of 0.01 gr/dscf and multiplied by maximum airflow of the furnaces stacks. When conducting performance tests, U.S. Steel Minntac is routinely at or near the maximum listed airflow used to calculate PTE. U.S. Steel calculated PM₁₀ and PM_{2.5} PTE using the particle size distribution data from AP-42 Section 11.23 and a 95% UPL analysis of condensable stack test data.

The MPCA compiled recent (< 10 years old) PM stack test data and calculated the 95% UPL value for the lb/long ton emission factor for each line. Using the emission factors and maximum production rate of the

furnaces, the MPCA-calculated values were on average 25% lower than the U.S. Steel values calculated using the MACT limit. MPCA-calculated emission factors for each furnace can be found in TSD attachment 2.

The MPCA views its methodology as more representative (yet still adequately conservative) of the furnace PM PTE. However, using an enforceable limit as the basis for calculating PTE is an acceptable method and the MPCA has accepted the PM PTE calculated by U.S. Steel as the values that support the permit reissuance.

To determine NO_x and SO₂ PTE for the furnaces, U.S. Steel relied on two years of CEMS data from each furnace. The CEMS record NO_x and SO₂ emission rates at each furnace every 15 minutes. Using EPA's publicly available ProUCL tool, U.S. Steel calculated 99% upper prediction limits for lb/hr NO_x and SO₂ emission rates for each of the five furnaces. The 99% UPL is a value that there is 99% confidence that a single future value will be less than or equal to. U.S. Steel did not consider production rate of the furnaces when conducting their analysis. U.S. Steel has stated that many variables impact NO_x and SO₂ emission rates at the furnaces and a production-based emission factor does not always correlate well with the emissions profile.

The MPCA conducted a similar analysis to calculate NO_x and SO₂ PTE for the five furnaces using the same CEMS dataset. The MPCA used fuel use data provided by U.S. Steel Minntac to split the data among two different operating scenarios: natural gas-only, and natural gas with biomass. For each operating scenario at each furnace, the MPCA used production data (monitored continuously) to convert the CEMS data into emission factors and determined 95% UPLs. With the 95% UPL for the worst-case operating scenario at each furnace for each pollutant, the MPCA calculated hourly PTE using the maximum production capacity of each furnace.

The MPCA believes its approach taking into consideration the worst-case fuel scenario and maximum listed capacity of the furnaces more closely aligns with the definition of potential to emit at Minn. R. 7005.0100, subp. 35a. However, given the more conservative 99% UPL used by U.S. Steel, the fact the data used is from operating conditions near maximum capacity for all five lines, and the similarity in values obtained from both methods, the MPCA has accepted U.S. Steel's lb/hr PTE values in supporting this permit reissuance. The table below compares the U.S. Steel-calculated and MPCA-calculated PTE values for the five furnaces.

Table 17. Comparison of Furnace NO_x PTE values

Furnace	MPCA-calculated NO _x PTE (lb/hr)	U.S. Steel-calculated NO _x PTE (lb/hr)
Line 3 (EQUI 146)	677	625
Line 4 (EQUI 279)	599	692
Line 5 (EQUI 280)	612	614
Line 6 (EQUI 3)	440	414
Line 7 (EQUI 179)	463	528
Sum	2,791	2,873

Table 18. Comparison of Furnace SO₂ PTE Values

Furnace	MPCA-calculated SO ₂ PTE (lb/hr)	U.S. Steel-calculated SO ₂ PTE (lb/hr)
Line 3 (EQUI 146)	151	143
Line 4 (EQUI 279)	129	122
Line 5 (EQUI 280)	119	114
Line 6 (EQUI 3)	125	125
Line 7 (EQUI 179)	154	172
Sum	678	676

Mercury and other metallic HAPs emissions are based on performance test data. All emission factors using site-specific performance test data use a 20% safety factor due to the uncertainty in determining a maximum emission rate from just one performance test. Greenhouse gas emissions are based on emission factors from The Climate Registry and global warming potentials from Part 98.

Fugitive Sources:

Drop point fugitive emissions, such as loading onto and off of conveyors, loading material into and out of trucks, dumping material onto storage piles, etc. Drop point emission factors are based on AP-42 Chapter 13.2.4, Aggregate Handling and Storage Piles. Wind speed for these equations is based on meteorological data from Hibbing airport.

Wind erosion from exposed storage piles. Wind blowing across outdoor storage piles (pellet piles, concentrate piles, crude ore piles, the tailings basin, etc.) has the potential to create fugitive dust. Emission factors for wind erosion are based on AP-42, Chapter 13.2.5, Industrial Wind Erosion. This method uses wind speeds, threshold friction velocities, and pile shape to calculate potential emissions. Wind speeds are based on meteorological data from Hibbing airport. Threshold friction velocities are based on the material of the pile. The lower the threshold, the more likely emissions will occur. The piles are listed in the Fugitive Dust Control plan and Minntac will continue to monitor the piles as required by that plan.

3.2 Coal

Minntac is permitted to burn coal in the Line 6 and Line 7 Rotary Kilns (EQUI 3 and EQUI 179). However, much of the coal handling equipment previously on site was damaged and not replaced. U.S. Steel has stated that if they were to combust coal in EQUI 3 and EQUI 179, it would require the hauling of pre-crushed coal via truck. The coal would then be unloaded in a hopper and conveyed to the furnaces. These coal handling units are identified as EQUI 684 and EQUI 685 and are subject to NSPS LL as described in section 2 of this TSD.

3.3 Removal of Retroactive PSD Permitting Requirements

In 2008, the MPCA retroactively approved the installation of auxiliary burners in the agglomerator traveling grates that had occurred between 1987 – 1989. The permit resulting from the MPCA's review of the Class I Area Impact analysis imposed requirements detailing a path to NO_x reductions from the five agglomerators at the facility. The permit also established an enforceable long-term goal to reduce annual NO_x emissions by at least 70%. It required the Minntac facility to meet an annual limit of 13,300 tpy limit at the issuance of permit 005 in December 2008 and a limit of 7300 tpy by February 2010 and thereafter.

The 2008 permit required U.S. Steel to achieve the NO_x reduction goal by selecting from a list of NO_x control technologies; completing first a pilot test; and demonstrating full-scale implementation of the selected control technology. U.S. Steel selected and piloted low-NO_x burners on Line 7 in May 2010 and later completed full-scale demonstrations of the low NO_x burners on Line 5 and Line 4 in December 2015 and December 2016, respectively.

Following the pilot testing and full-scale demonstrations of Low NO_x burners, the permit required submittals of the following deliverables (paraphrased from permit 005):

- Pilot Test Results with a summary of each technology tested and a proposal for a full-scale demonstration technology
- Full Scale Demonstration Report for MPCA approval;
- A subsequent MPCA evaluation of the Full-Scale Demonstration Report; and
- Final NO_x Reduction Report

The MPCA administrative record does not document receiving or creating the items listed above related to choosing the appropriate NOx control technology to achieve the 70% NOx reduction goal. However, U.S. Steel installed low-NOx burners on four of their five agglomerators and addresses visibility impacts on Class I areas by complying with its permit limit of 7,300 tpy NOx. Furthermore, with the Low-NOx burners currently installed, U.S. Steel continues to comply with the Regional Haze source-wide emission limit included in the Federal Implementation Plan (FIP) that became effective on in April 2021.

U.S. Steel has installed appropriate and effective NOx controls as originally required by permit 005, effectively fulfilling the requirements to test and install NOx-reducing technologies. Therefore, this permit action removes all remaining requirements related to the selection and installation of NOx control technology.

Low NOx Burner installations:

- Line 7: May 2010
- Line 6: April 2011
- Line 5: December 2015
- Line 4: December 2016

3.4 Monitoring for VOC and CO BACT Limits at Kilns

In this permit action, the MPCA removed requirements to monitor the waste gas to heat input ratio at each rotary kiln. These requirements included citations as monitoring for CO and VOC BACT and the requirements included language stating “[t]his ratio will be used as an indicator to learn how complete CO & VOC are destroyed in the indurating furnace.” However, previous permit records did not specify how this data would be used to gain insight on CO and VOC destruction and furthermore, did not include a rationale for how the monitoring of this ratio helped ensure compliance with the VOC and CO BACT limits since there was not a ratio included in the permit or permit record that was defined as indicating good combustion practices (which was determined to be BACT for the five kilns at the time).

In this permit action, the MPCA added appropriate monitoring to ensure compliance with VOC and CO limits at each of the five kilns. The MPCA added a minimum combustion temperature limit and continuous temperature monitoring at the kiln exit and recurring inspections of the burners and fans. The minimum combustion temperature of 1400 degrees Fahrenheit was proposed by U.S. Steel as indicative of good combustion practices. Their rationale was that thermal oxidation of VOCs occurs at temperatures of 1400 degrees Fahrenheit and above. The MPCA agrees with this rationale. Common VOCs created during combustion such as Benzene, Xylene, Toluene, etc. have autoignition temperatures well below 1400 degrees Fahrenheit. The 1400 degrees Fahrenheit value being indicative of VOC destruction is also supported by the 1200 to 1500 degrees Fahrenheit range cited as being associated with >99.9% destruction of organics in EPA’s APTI Course 427 Combustion Evaluation Student Manual. Continuous temperature monitoring at the kiln exit will ensure compliance with the temperature limit.

Similarly, the 1400 degrees Fahrenheit minimum temperature limit helps ensure compliance with the carbon monoxide BACT limit at each kiln. At 1400 degrees Fahrenheit, complete combustion is nearly assured, and excess CO emissions are unlikely to occur.

Historically, Minntac has inspected the kiln combustion components during their outages every 12-14 months. The MPCA has added these inspections as permit requirements at each kiln. Minntac will be required to inspect the alignment of the burners and the condition of the fans providing combustion air at least every 18 months. These recurring inspections verify will ensure Minntac is operating the kilns with

appropriate fuel-air distribution and mixing, and adequate combustion air, which are characteristics of good combustion practices.

Recent performance tests indicate that emissions from the kilns are well below the VOC and CO limits. VOC emissions are typically 5-10% of permit limits, while CO emissions are typically 20-30% of permit limits. Minntac is incentivized to achieve good combustion to maintain pellet quality, which typically require temperatures in excess of 2000 degrees Fahrenheit. Based on Minntac's operation and past performance tests, the MPCA believes the monitoring described above is appropriate to demonstrate ongoing compliance with these limits.

3.5 NAAQS Compliance demonstration

Minntac has not previously completed compliance demonstrations for NAAQS standards. Given the large PTE for NAAQS pollutants from the facility, and that Minntac was identified as possibly contributing to modeled exceedances for 1-hour SO₂ and 1-hour NO_x standards during the permitting process for the Polymet mine, the MPCA is requiring NAAQS compliance demonstrations for the following standards during the term of this permit: 1-hour SO₂, 1-hour and annual NO_x, 24-hour PM₁₀, 24-hour and annual PM_{2.5}.

The requirement to conduct NAAQS compliance demonstrations for these pollutants also includes conditions to ensure that if no demonstration is complete and approved by the MPCA by a specified timeline after permit issuance, then modeling must be submitted.

3.6 Cyclone Reclassification as Inherent Process Equipment

Minntac operates a cyclone after each rotary kiln to treat the process waste gas. These cyclones were originally permitted as control equipment but have been reclassified as inherent process equipment with this permit action and are now identified as EQUI 707, EQUI 708, EQUI 709, EQUI 710, and EQUI 711. The MPCA used guidance provided in EPA's *Criteria for Determining whether Equipment is Air Pollution Control Equipment or Process Equipment* from November 27, 1995 to determine if the cyclones should be considered inherent process equipment. The EPA guidance outlines three main criteria:

1. Is the primary purpose of the equipment to control air pollution?
2. Where the equipment is recovering product, how do the cost savings from the product recovery compare to the cost of the equipment?
3. Would the equipment be installed if no air quality regulations were in place

Minntac has stated that the cyclones are important for preventing fan wear at the kilns, by precluding larger particulate matter from leaving the grate section and impacting the fans. Since the kilns cannot operate without the fans, and replacing fans more frequently would cause increased downtime to the 24/7 operation of the kilns, there is a significant financial benefit to operating the cyclones. Furthermore, Minntac estimates material recovered in the cyclones can be valued at over \$14M while the operation costs of the cyclones are around \$180K. Based on these criteria and the description provided by the facility, the MPCA agrees with Minntac's determination that EQUIs 707-711 are inherent to the process. Minntac's full justification can be found in TSD attachment 3.

The PTE calculations supporting this permit action do not include a control efficiency for the cyclones since they are considered inherent to the process. However, because the proper operation of the furnace includes the cyclones, and the cyclones do remove particulate matter from the waste gas stream, the permit contains requirements to vent kiln emissions to the cyclones and perform monitoring to ensure the cyclones are operated as designed.

3.7 Regional Haze FIP

Under the Clean Air Act, states are responsible for developing a Regional Haze State Implementation Plan (SIP) that addresses regional haze in each Class I area located within the state and in each Class I area located outside the state which may be affected by emissions from sources within the state. The Regional

Haze SIP is required to identify existing facilities that cause or contribute to visibility impairment; analyze, identify, and apply federally-enforceable control strategies for those sources; and periodically demonstrate reasonable progress toward reaching visibility goals. States are also responsible for periodic comprehensive updates to their Regional Haze SIPs that address these same topics.

For certain older sources, the SIP must also determine the Best Available Retrofit Technology (BART) and schedules for compliance with BART for each BART-subject source that emits any air pollutant which may reasonably be anticipated to cause or contribute to any impairment of visibility in any mandatory Federal Class I area. The state also has an option to demonstrate that an emissions trading program or other alternative will achieve greater reasonable progress toward natural visibility conditions than would be achieved through the installation and operation of BART.

The determination of BART is based on an analysis of the best system of continuous emission control technology available and associated emission reductions achievable for each BART-subject source. This analysis considers the technology available, the costs of compliance, the energy and non-air quality environmental impacts of compliance, any pollution control equipment in use at the source, the remaining useful life of the source, and the degree of improvement in visibility which may reasonably be anticipated to result from the use of such technology.

In the MPCA's 2009 Regional Haze SIP and subsequent 2012 SIP supplement, the MPCA identified site specific nitrogen oxide (NO_x) and sulfur dioxide (SO₂) BART determinations for emission sources at taconite facilities. For Minntac, the MPCA identified NO_x BART for all indurating furnaces as good combustion practices, and fuel blending. SO₂ BART was identified as the existing wet scrubbers controlling each furnace. It also included daily emission limits for NO_x and SO₂ emissions, as 30-day rolling averages, for all lines. However, these limits never became finalized as EPA disapproved the proposed NO_x and SO₂ limits contained in the SIP submitted by Minnesota on September 30, 2013. While EPA agreed with Minnesota's determination of which sources were subject to BART and that BART for particulate matter (PM) emissions from these sources was satisfied by the requirements of 40 CFR pt. 63, subp. RRRRR (Taconite MACT); EPA developed a federal implementation plan (FIP) to address the deficiencies in the Minnesota SIP.

Regional Haze Taconite Federal Implementation Plan (FIP)

On February 6, 2013, EPA promulgated a Taconite Regional Haze FIP that included BART limits for taconite furnaces subject to BART in Minnesota with an effective date of March 8, 2013. Cliffs Natural Resources, ArcelorMittal USA LLC, and the State of Michigan petitioned the 8th Circuit Court of Appeals for a review of the FIP and filed a joint motion to stay the FIP which was granted on June 14, 2013. A settlement agreement between the mentioned parties and EPA was reached to resolve certain items in the 2013 FIP. The settlement agreement was published in the *Federal Register* on January 30, 2015 (80 FR 5111), executed on April 9, 2015, and prompted EPA to reconsider the 2013 FIP.

The EPA proposed revisions to the Taconite Regional Haze FIP on October 22, 2015, which proposed to revise the BART emission limits and compliance schedules for the following taconite facilities: United Taconite, Hibbing Taconite, Tilden Mining, and ArcelorMittal Minorca Mine. EPA proposed to revise the NO_x limits and compliance schedules for all four facilities and to revise the SO₂ requirements for Tilden Mining and United Taconite. On April 12, 2016, the EPA finalized the revisions to the 2013 FIP and the final rule (2016 FIP) was effective on May 12, 2016. The rule and applicable requirements can be found in 40 CFR § 52.1235.

On November 15, 2016, the 8th Circuit Court of Appeals terminated the June 14, 2013, stay and extended the deadlines in the original 2013 FIP by one day for each day the court's stay was in place. From the day the 2013 FIP was effective to the day it was stayed, 98 days elapsed (March 8, 2013, to June 14, 2013). As a result, the deadlines contained in the 2013 FIP still apply (i.e., 6 months after March 8, 2013), only now from the date the stay was terminated, minus the number of days elapsed prior to the stay being issued. The

deadlines contained in the 2016 FIP were never stayed and apply as promulgated (e.g., 6 months after May 12, 2016).

Summary of Regional Haze Taconite FIP Requirements for Minntac

The U.S. EPA reached a settlement agreement with U.S. Steel for Minntac in 2018 related to NO_x limits and the U.S. EPA finalized revisions to the Taconite FIP on February 4, 2020 (85 FR 6125). The Taconite FIP specifies a NO_x BART limit of 1.6 lb/MMBtu averaged over 30 days across all five of its lines, regardless of fuel type. Minntac was required to comply with the NO_x emissions limit beginning with the 30-day period from September 1, 2019, to September 30, 2019.

The Taconite FIP also specifies BART limits for SO₂ emissions as an hourly emission rate, as a 30-day rolling weighted average, across all five lines. Minntac was required to comply with this emission limit beginning 3 months after March 8, 2013 (approximately June 8, 2013).

For Minntac, the Taconite FIP requires that compliance with all limits will be demonstrated through the operation and maintenance of continuous emission monitoring systems (CEMS) on all five lines. CEMS data for NO_x emissions was required to be collected beginning on the compliance date of the NO_x Limit (September 1, 2019). CEMS data for SO₂ emissions was required to be collected beginning six months after May 12, 2016 (approximately November 12, 2016). CEMS data for NO_x and SO₂ emissions is required to be submitted to EPA no later than 30 days from the end of each calendar quarter. Minntac must perform standard CEMS calibration checks.

The regional haze rule includes requirements at 40 CFR § 52.1235(c) on how Minntac is to operate CEMS. The rule outlines things such as CEMS calibration, and data substitution procedures for when a CEMS is not operational.

3.8 Minnesota Industrial Process Equipment Rule (Minn. R. 7011.0715) Compliance

Minntac contains many emissions units subject to Minn. R. 7011.0715. Many of these emissions units vent to control equipment and comply with Minn. R. 7011.0715, subp 1(A) by meeting the provisions of Minn. R. 7007.0715, subp. 3 which states that these units shall be considered in compliance with the PM limit in subpart 1, item A when the following provisions are met:

- The facility is located outside the Minneapolis-Saint Paul Air Quality Control Region and the city of Duluth;
- The industrial equipment is located not less than one-fourth mile from any residence or public roadway;
- The industrial equipment has control equipment with a collection efficiency of not less than 85 percent; and
- The operation of the entire facility does not cause a violation of ambient air quality standards.

The MPCA considers the last statement in the bulleted list above (regarding ambient air quality standards) to be satisfied because there are no monitored violations of National or Minnesota Ambient Air Quality Standards for which Minntac is culpable.

Section 3.11 of this TSD outlines the compliance demonstration for each emissions unit subject to IPER.

3.9 NESHA RRRRR

This permit action includes significant updates to 40 CFR pt. 63, subp. RRRRR (Taconite MACT) requirements in the permit, both in terms of clarifying the applicability of the Taconite MACT across emission units and control equipment and incorporating the U.S. EPA's 2024 updates to the rule coming out of a Risk and Technology Review.

Affected Sources under the Taconite MACT

The Taconite MACT includes four different types of affected sources: ore crushing and handling operations, ore dryers, indurating furnaces, and finished pellet. Minntac does not contain an ore dryer. The MACT also contains requirements for fugitive sources along with control equipment controlling affected sources.

Taconite MACT requirements are included in the permit as follows:

- All existing ore crushing and handling operations requirements are contained at COMG 39.
- Existing finished pellet handling equipment requirements are contained at COMG 40
- Fugitive source requirements are contained at COMG 41
- Existing indurating furnace requirements are contained individually at each furnace (EQUI 3, EQUI 146, EQUI 179, EQUI 279, EQUI 280).
- Control equipment requirements are contained individually at each scrubber or fabric filter

The MACT differentiates between existing affected sources and new affected sources. Importantly, the designations of new versus existing apply to the affected source as a whole and not individual emissions units. The U.S. EPA clarified this in the *Federal Register* in the preamble for the proposed rule at 67 FR 77562:

“When establishing the affected sources for these proposed standards, we recognized that selecting a narrow definition of affected source (*e.g.*, each crusher, conveyor, and bin) would cause new source MACT requirements to be triggered more frequently than if the affected source were defined as a collection of equipment (*e.g.*, all ore crushing and handling emission units). We do not believe that the replacement of an individual emission unit that is part of a larger integrated process should trigger new source MACT.”

Therefore, it is clear to the MPCA that the recent construction of replacement tertiary crushers EQUI 673 (2012), EQUI 674 (2012), and EQUI 675 (2018), are not subject to the PM limit for new ore crushing and handling units because these three emissions units are a part of a larger integrated ore crushing and handling process.

Performance Testing Requirements

For process equipment subject to a PM limit under the MACT, reoccurring performance tests are required. The MACT, at 40 CFR § 63.9621(b)(3), specifies that for each ore crushing and handling affected source, and pellet handling affected source, compliance with the PM limits is based on a flow weighted mean concentration from all emission units in each affected source. Furthermore, the MACT specifies at 40 CFR § 63.9620(e) that emission units at an affected source may be grouped together if they share a process type and control equipment.

Given the size of the Minntac facility, the MPCA has identified two separate ore crushing and handling affected sources and two separate pellet handling affected sources. Step I/II (lines 3-5) has an ore feed beginning with the primary crusher EQUI 47. Step III (lines 6-7) has an ore feed beginning with the primary crusher EQUI 48. All three Step I/II lines (lines 3-5) merge their pellets into one pellet handling system depositing in pellet stockpile FUGI 17, while the Step III lines (6-7) pellets are fed to stockpile FUGI 25. The affected sources can be operated independent of one another and for this reason the MPCA has identified the following five affected sources aside from the five indurating furnaces:

- Step I/II ore crushing and handling;
- Step III ore crushing and handling (existing);
- Step III ore crushing and handling (new);
- Step I/II pellet handling
- Step III pellet handling

Minntac’s previous permit did not specify a testing plan. In this permit action, the MPCA and Minntac have worked to formalize a testing plan meeting the provisions of the MACT. As detailed earlier in this TSD, Minntac is authorized to replace existing scrubbers with fabric filters, including controls subject to

requirements of the MACT. Because the MACT requires all emission units in a testing group to share the same control equipment type, some emission units are included in two testing groups, one scrubber group and one fabric filter group. The permit contains language to automatically require testing of each emission unit that has had a scrubber replaced with a fabric filter within 30 days of the replacement. Due to the ongoing nature of the wet to dry control replacements, some fabric filter testing groups do not have any emission units currently venting to a fabric filter and testing in that group will only commence once an emission unit in the group vents to a fabric filter. Otherwise, testing dates for the rest of the groups are based on when a unit in that group was last tested. If a test was performed more than 5 years ago at permit issuance, the next test is due 180 days after permit issuance. A summary of the performance testing plan is below:

Table 19. Minntac Taconite MACT Performance Test Schedule

Subject item	Affected source	Most recent test date	Test Frequency in 13700005-101	Comments
COMG 42 – Testing Group: Step I and II coarse crushers - Scrubbers	Step I/II Ore Crushing and Handling	8/25/2015	Every 60 months. Due 365 days after issuance.	Group testing as allowed by MACT. Minntac will rotate through two stacks to be tested in this group.
COMG 45 - Testing Group: Step I and II Conveyors Group 2 - Scrubber	Step I/II Ore Crushing and Handling	5/30/2013	Every 60 months. Due 365 days after issuance.	Group testing as allowed by MACT. Minntac will rotate through six stacks to be tested in this group.
COMG 46 - Testing Group: Step I and II Conveyors Group 2 - Cartridge Filters	Step I/II Ore Crushing and Handling	n/a	Every 60 months. Due 30 days after startup of first cartridge filter.	Group testing as allowed by MACT. This group contains the same emission units and stacks as COMG 45. Emission units in COMG 45 are subject to COMG 46 requirements upon replacement of its associated scrubber with a fabric filter as authorized by this permit.
COMG 47 - Testing Group: Step I and II Conveyors Group 3 - Cartridge Filters	Step I/II Ore Crushing and Handling	4/10/2023	Every 60 months. Due 4/10/2028.	Group testing as allowed by MACT. Minntac will rotate through six stacks to be tested in this group.
COMG 48 - Testing Group: Secondary Crushers L1-L5 - Cartridge Filters	Step I/II Ore Crushing and handling	9/25/2025	Every 60 months. Due 9/25/2030.	Group testing as allowed by MACT. Minntac will rotate through five stacks to be tested in this group.
COMG 49 - Testing Group: Secondary Crushers L6-L10 - Scrubbers	Step I/II Ore Crushing and Handling	11/13/2023	Every 60 months. Due 11/13/2028	Group testing as allowed by MACT. Minntac will rotate through five stacks to be tested in this group.
COMG 50 - Testing Group: Secondary Crushers L6-L10 - Cartridge Filters	Step I/II Ore Crushing and Handling	n/a	Every 60 months. Due 30 days after startup of first cartridge filter.	Group testing as allowed by MACT. This group contains the same emission units and stacks as COMG 49. Emission units in COMG 49 are subject to COMG 50 requirements upon replacement of its associated scrubber with a fabric filter as authorized by this permit.

COMG 51 - Testing Group: Tertiary Crushers L1-L6 - Cartridge Filters	Step I/II Ore Crushing and Handling	9/25/2025	Every 60 months. Due 9/25/2030.	Group testing as allowed by MACT. Minntac will rotate through six stacks to be tested in this group.
COMG 52 - Testing Group: Tertiary Crushers L7-L12 - Cartridge Filters	Step I/II Ore Crushing and Handling	9/25/2025	Every 60 months. Due 9/25/2030.	Group testing as allowed by MACT. Minntac will rotate through six stacks to be tested in this group.
COMG 53 - Testing Group: Tertiary Crushers L13-L16 - Cartridge Filters	Step I/II Ore Crushing and Handling	5/9/2011	Every 60 months. Due 365 days after issuance.	Group testing as allowed by MACT. Minntac will rotate through five stacks to be tested in this group.
COMG 54 - Testing Group: Step I and II Conveyors Group 4 - Cartridge Filters	Step I/II Ore Crushing and Handling	12/12/2023	Every 60 months. Due 12/12/2028.	Group testing as allowed by MACT. Minntac will rotate through two stacks to be tested in this group.
COMG 55 - Testing Group: Step I and II Storage Bins - Scrubbers	Step I/II Ore Crushing and Handling	9/25/2025	Every 60 months. Due 9/25/2030	Group testing as allowed by MACT. Minntac will rotate through five stacks to be tested in this group.
COMG 56 - Testing Group: Step III Pan feeders - Scrubbers	Step III Ore Crushing and Handling (existing)	4/21/2025	Every 60 months. Due 4/25/2030.	Group testing as allowed by MACT. Minntac will rotate through two stacks to be tested in this group.
COMG 57 - Testing Group: Step III Pan feeders - Cartridge Filters	Step III Ore Crushing and Handling (existing)	n/a	Every 60 months. Due 30 days after startup of first cartridge filter.	Group testing as allowed by MACT. This group contains the same emission units and stacks as COMG 56. Emission units in COMG 56 are subject to COMG 57 requirements upon replacement of its associated scrubber with a fabric filter as authorized by this permit.
COMG 58 - Testing Group: Step III Secondary Crushers L11-15 - Scrubbers	Step III Ore Crushing and Handling (existing)	9/17/2021	Every 60 months. Due 9/17/2026	Group testing as allowed by MACT. Minntac will rotate through two stacks to be tested in this group.
COMG 59 - Testing Group: Step III Secondary Crushers L11-15 - Cartridge Filters	Step III Ore Crushing and Handling (existing)	n/a	Every 60 months. Due 30 days after startup of first cartridge filter.	Group testing as allowed by MACT. This group contains the same emission units and stacks as COMG 58. Emission units in COMG 58 are subject to COMG 59 requirements upon replacement of its associated scrubber with a fabric filter as authorized by this permit.
COMG 60 - Testing Group: Step III Secondary Crushers L18-23 - Scrubbers	Step III Ore Crushing and Handling (existing)	9/25/2025	Every 60 months. Due 9/25/2030	Group testing as allowed by MACT. Minntac will rotate through six stacks to be tested in this group.
COMG 61 - Testing Group: Step III Secondary Crushers L18-23 - Cartridge Filters	Step III Ore Crushing and Handling (existing)	n/a	Every 60 months. Due 30 days after startup of first cartridge filter.	Group testing as allowed by MACT. This group contains the same emission units and stacks as COMG 60. Emission units in COMG 60 are subject to COMG 61 requirements upon replacement of its associated

				scrubber with a fabric filter as authorized by this permit.
COMG 62 - Testing Group: Step III Secondary Crushers L24-28 - Scrubbers	Step III Ore Crushing and Handling (existing)	10/15/2015	Every 60 months. Due 365 days after issuance.	Group testing as allowed by MACT. Minntac will rotate through five stacks to be tested in this group.
COMG 63 - Testing Group: Step III Secondary Crushers L24-28 - Fabric Filters	Step III Ore Crushing and Handling (existing)	n/a	Every 60 months. Due 30 days after startup of first cartridge filter.	Group testing as allowed by MACT. This group contains the same emission units and stacks as COMG 62. Emission units in COMG 62 are subject to COMG 63 requirements upon replacement of its associated scrubber with a fabric filter as authorized by this permit.
COMG 64 - Testing Group: Step III Conveyors Group 1 - Scrubbers	Step III Ore Crushing and Handling (existing)	11/13/2023	Every 60 months. Due 11/23/2028	Group testing as allowed by MACT. Minntac will rotate through four stacks to be tested in this group.
COMG 65 - Testing Group: Step III Conveyors - Cartridge Filters	Step III Ore Crushing and Handling (existing)	n/a	Every 60 months. Due 30 days after startup of first cartridge filter.	Group testing as allowed by MACT. This group contains the same emission units and stacks as COMG 64. Emission units in COMG 64 are subject to COMG 65 requirements upon replacement of its associated scrubber with a fabric filter as authorized by this permit.
COMG 66 - Testing Group: Step III Storage Bins Group 1 - Fabric Filters	Step III Ore Crushing and Handling (existing)	9/23/2022	Every 60 months. Due 9/23/2027.	Group testing as allowed by MACT. Minntac will rotate through two stacks to be tested in this group.
COMG 67 - Testing Group: Step III Conveyors Group 2 - Fabric Filters	Step III Ore Crushing and Handling (existing)	4/9/2024	Every 60 months. Due 4/9/2029.	Group testing as allowed by MACT. Minntac will rotate through three stacks to be tested in this group.
COMG 68 - Testing Group: Step III Storage Bins Group 2 - Scrubbers	Step III Ore Crushing and Handling (existing)	n/a	Every 60 months. Due 30 days after startup of first cartridge filter.	Group testing as allowed by MACT. Minntac will rotate through two stacks to be tested in this group.
COMG 69 - Testing Group: Step I/II Pellet Handling Conveyors - Scrubbers	Step I/II Finished Pellet Handling	6/19/2025	Every 60 months. Due 6/19/2030.	Group testing as allowed by MACT. Minntac will rotate through six stacks to be tested in this group.
COMG 70 - Testing Group: Step I/II Grate Feeds - Scrubbers	Step I/II Finished Pellet Handling	5/8/2024	Every 60 months. Due 5/8/2029.	Group testing as allowed by MACT. Minntac will rotate through three stacks to be tested in this group.
COMG 71 - Testing Group: Step I/II Cooler Discharge - Scrubbers	Step I/II Finished Pellet Handling	5/8/2022	Every 60 months. Due 5/8/2027.	Group testing as allowed by MACT. Minntac will rotate through five stacks to be tested in this group.
COMG 72 - Testing Group: Step III Pellet Handling	Step III Finished Pellet Handling	5/6/2025	Every 60 months. Due 5/6/2030.	Group testing as allowed by MACT. Minntac will rotate through three stacks to be tested in this group.

Conveyors - Scrubbers				
COMG 78 – Testing Group : Step III Grate Feeds - Scrubbers	Step III Finished Pellet Handling	n/a	Every 60 months. Due 365 days after issuance.	Group testing as allowed by MACT. Minntac will rotate between two stacks to be tested in this group.
EQUI 48 – Step III Coarse Crusher	Step III Ore Crushing and Handling (existing	7/21/2020	Every 60 months. Due 180 days after issuance.	EQUI 48 is not in a group because it is the only primary crushing emission unit type in its affected source.
EQUI 37 – L5 Grate Discharge	Step I/II Finished Pellet Handling	7/27/2011	Every 60 months. Due 365 days after issuance.	Grate Discharge units historically have significantly higher emission rates than other units in the pellet handling affected sources. If grouped, an unusually high test result could result in non-compliance with the flow-weighted average for an affected source since that result would apply to all grate discharge units in the group. Additionally, most units have not been tested in over a decade. Therefore, the MPCA is requiring individual testing for grate discharge units in this permit term. The MPCA may consider implementing testing groups with the next reissuance, or via a permit amendment once all testing required this permit term is complete.
EQUI 97 – L6 Grate Discharge	Step III Finished Pellet Handling	5/9/2024	Every 60 months. Due 5/9/2029	
EQUI 178 – L7 Grate Discharge	Step III Finished Pellet Handling	10/11/2006	Every 60 months. Due 365 days after issuance.	
EQUI 348 – L3 Grate Discharge	Step I/II Finished Pellet Handling	5/1/2019	Every 60 months. Due 365 days after issuance.	
EQUI 368 – L4 Grate Discharge	Step I/II Finished Pellet Handling	7/1/2010	Every 60 months. Due 365 days after issuance.	
EQUI 3 – Line 6 Rotary Kiln	Line 6 Rotary Kiln	5/6/2025	Every 30 months. Due 11/6/2027	The MACT requires performance testing on each indurating furnace at least twice every five years. Therefore, the MPCA has updated the performance testing requirements for filterable particulate matter to be conducted every 30 months.
EQUI 146 – Line 3 Rotary Kiln	Line 3 Rotary Kiln	5/8/2024	Every 30 months. Due 11/8/2026	
EQUI 179 – Line 7 rotary Kiln	Line 7 rotary Kiln	5/7/2025	Every 30 months. Due 11/7/2027	
EQUI 279 – Line 4 Rotary Kiln	Line 4 Rotary Kiln	4/12/2022	Every 30 months. Due 180 days after issuance.	
EQUI 280 – Line 5 Rotary Kiln	Line 5 Rotary Kiln	5/7/2024	Every 30 months. Due 11/7/2026.	The permit requires testing for PM/PM10/PM2.5 for reasons other than the MACT and testing for these emission rates was set to match the 30-month test frequency.

Emission units not subject to MACT requirements

The definition of *Finished Pellet Handling* in the MACT (40 CFR § 63.9652) specifically excludes pellet coolers and gravity conveyor gallery vents designed to remove heat and water from the structure from inclusion in the pellet handling affected source. Therefore, pellet coolers EQUI 41, EQUI 267, EQUI 268, EQUI 350, and

EQUI 370 are not subject to the requirements of the MACT. Additionally, EQUIs 109-118, EQUIs 124-126, EQUIs 180-191, EQUI 148, EQUI 352, and EQUIs 697-702 are not subject to the requirements of the MACT because they are conveyor gallery vents.

MACT updates and compliance timeline

On May 6, 2024, the U.S. EPA published an update to the Taconite MACT (89 FR 16408) following the completion of a risk and technology review as required under the Clean Air Act sections 112(d) and 112(f). The updated rule includes requirements to meet new mercury, hydrogen fluoride, and hydrogen chloride limits with compliance required by March 8, 2027. The permit includes the updated rule language, limits, and compliance dates as written in rule.

However, Minntac was listed as one of the facilities in Proclamation 10958 of July 17, 2025, that are exempt from compliance with the May 6, 2024 amendments to the MACT for a period of two years. Requirements at the indurating furnaces that were affected by the May 6, 2024 amendments are included in the permit as they appear in rule, but with additional text noting the extension to the compliance deadline and a reference to the proclamation, which is included as a permit appendix.

3.10 Contractor Activities

Minntac utilizes contractors to handle non-metallic material and metallic non-fines.

- Non-metallic material includes fluxstone, gravel, roadbed stemming, refractory, soil, road rock, and filter rock. Non-metallic materials are generally processed for ballast, road base, or other beneficial re-use needs.
- Metallic non-fines include ball mill balls, chips, sinter, pellets, and ore. Metallic non-fines are generally transferred to other areas on-site to be stockpiled prior to shipment and may be screened before shipment to prevent damage to equipment.
- Metallic fines include fine ore, concentrate, and filter cake. Metallic fines are generally crushed and screened for re-use in the plant and after being stockpiled for an extended period of time.

This permit action created throughput limits for the contractor activities. The limits are used to define processes that occur at the facility and to calculate potential emissions. The throughput values are based on historical data of contractor operated material handling of metallic non-fines and non-metallic material and requires recordkeeping and reporting for these operations. Contractor activities associated with the business need for the Permittee are meant to be included within the source for which they operate or support as discussed in the attached Thorvig Memo.

The permit requires daily visible emission checks on each active activity contracted by the Permittee. If visible emissions are observed, the Permittee or contractor must investigate the condition and conduct appropriate corrective actions to eliminate the visible emissions. Daily visible emission checks will ensure the activities are operating properly, and therefore meeting opacity standards, fugitive emissions, and visible emissions as described in the potential standards. The daily visible emission check ensures the activity is meeting whatever standard applies.

Due to the wide variety of potential contractor activities (handling pellets vs. crushing waste rock), there are several potential applicable standards, and each activity will not be subject to the same standards. The permit identifies four of the most likely standards that will apply to the contractors. The permit lists the fugitive operation portion of each of these standards and applicable citations. The Permittee is responsible for knowing and following each standard for each activity, as applicable.

- NSPS subpart LL for metallic mineral processing has an opacity standard and requires an initial performance test to show compliance with the standard. Proper operation is used for continuous compliance.

- NSPS subpart OOO for nonmetallic mineral processing has an opacity standard and requires initial performance testing and reoccurring performance testing to show compliance with the standard. Proper operation is used for continuous compliance.
- NESHAP subpart RRRRR for taconite ore processing requires fugitive emissions be managed and controlled as described in a fugitive dust control plan.
- Minn. R. 7011.0150 for preventing particulate matter from becoming airborne

The permit requires daily visible emission checks on each active activity contracted by the Permittee. If visible emissions are observed, the Permittee or contractor must investigate the condition and conduct appropriate corrective actions to eliminate the visible emissions. Daily visible emission checks will ensure the activities are operating properly, and therefore meeting opacity standards, fugitive emissions, and visible emissions as described in the potential standards. The daily visible emission check ensures the activity is meeting whatever standard applies.

3.11 Monitoring

In accordance with the Clean Air Act, it is the responsibility of the owner or operator of a facility to have sufficient knowledge of the facility to certify that the facility is in compliance with all applicable requirements.

In evaluating the monitoring included in the permit, the MPCA considered the following:

- the likelihood of the facility violating the applicable requirements;
- whether add-on controls are necessary to meet the emission limits;
- the variability of emissions over time;
- the type of monitoring, process, maintenance, or control equipment data already available for the emission unit;
- the technical and economic feasibility of possible periodic monitoring methods; and
- the kind of monitoring found on similar units elsewhere.

The table below summarizes the monitoring requirements.

Table 20. Monitoring

Subject Item*	Requirement (basis)	What is the monitoring?	Why is this monitoring adequate?
COMG 37 – Regional Haze and Facility-Wide NO _x limits	NO _x ≤ 5000 lb/hr 24- hour average NO _x ≤ 7300 tons/year 365-day rolling sum [Title I Condition: 40 CFR § 52.21(p)(visibility)]	CEMs usage to measure NO _x emissions; daily calculation of rolling sum.	CEMs are used to measure NO _x emission rates. The daily calculation is completed using CEMs data which ensures compliance with the limit.

Subject Item*	Requirement (basis)	What is the monitoring?	Why is this monitoring adequate?
	NO_x ≤ 1.6 lb/MMBtu SO₂ ≤ 498 lb/hr when all lines producing flux pellets SO₂ ≤ 630 lb/hr when lines 3-5 producing acid pellets and 6-7 producing flux pellets SO₂ ≤ 498 lb/hr when all lines producing flux pellets SO₂ ≤ 800 lb/hr when all lines producing acid pellets SO₂ Compliance demonstrated via weighted average Sulfur content of Fuel ≤ 0.60 percent by wt. 30-day block average [40 CFR § 52.1235]	CEMs usage to measure NO_x emissions; daily calculation and record keeping of NO_x 30-day average CEMs usage to measure SO₂ emissions, daily calculation and recordkeeping of SO₂ 30-day weighted rolling average; sulfur content certification by fuel supplier.	The Regional Haze FIP requires CEMs use, recordkeeping, and reporting, which ensures compliance with the limit. CEMs are used to measure NO_x emission rates. The 30-day rolling average is completed using CEMs data which ensures compliance with the limit. The Regional Haze FIP requires CEMs use, recordkeeping, and reporting, which ensures compliance with the limit. Fuel type recordkeeping along with sulfur content certifications ensure predictable emission rates. The 30-day rolling average calculation is completed using CEMs data.
COMG 38 – Line 6 and 7 Combined Limits	VOC ≤ 35 tons per year 12-month rolling sum for the combustion of wood waste CO ≤ 90 tons per year 12-month rolling sum for the combustion of wood waste [Title I Condition: Limits to avoid PSD major modification]	Daily Recordkeeping of wood waste usage; Monthly calculations of emissions; quarterly fuel sampling of wood waste.	Records can be generated on a daily basis with data from automated fuel tracking at each line. Heat input data for the calculation of VOC and CO emission is based on quarterly fuel sampling. Emission factors for the calculation of VOC and CO emissions are based on the most recent performance test.
COMG 39 – Taconite MACT Ore Crushing and Handling	The Permittee must limit Filterable Particulate Matter ≤ 0.008 grains per dry standard cubic foot 3-hour average. [40 CFR pt. 63, subp. RRRRR & Minn. R. 7011.8030]	Performance test requirements at individual testing groups; flow-weighted average calculation; CPMS for wet scrubber water flow rate and pressure drop, bag leak detectors for baghouses.	Monitoring required by 40 CFR pt. 63, subp. RRRRR is adequate to demonstrate compliance with the requirements of the standard because this standard was promulgated after November 15, 1990, and post-November 15, 1990, NSPS and NESHAPs contain adequate monitoring requirements.

Subject Item*	Requirement (basis)	What is the monitoring?	Why is this monitoring adequate?
COMG 40 – Taconite MACT Existing Finished Pellet Handling	Filterable Particulate Matter <= 0.008 grains per dry standard cubic foot 3-hour average. [40 CFR pt. 63, subp. RRRRR & Minn. R. 7011.8030]	Performance test requirements at individual testing groups; flow-weighted average calculation; CPMS for wet scrubber water flow rate and pressure drop, bag leak detectors for baghouses.	Monitoring required by 40 CFR pt. 63, subp. RRRRR is adequate to demonstrate compliance with the requirements of the standard because this standard was promulgated after November 15, 1990, and post-November 15, 1990, NSPS and NESHAPs contain adequate monitoring requirements.
FUGIs 1-29, FUGI 37 – Various fugitive sources	Opacity <= 20 percent opacity except for one six-minute period per hour of not more than 33 percent opacity. [Minn. R. 7011.0105]	Operation according to dust control plan; daily VE checks, corrective actions, recordkeeping	The fugitive dust control plan contains visible emission checks, inspections, and corrective actions. The plan meets the requirements of 40 CFR pt. 63, subp. RRRRR and is adequate to demonstrate compliance with the requirements of the Minnesota opacity standards.
FUGI 36 – Contractor Activities	505,000 tons per year 12-month rolling sum of metallic fines. 2,585,000 tons per year 12-month rolling sum of metallic non-fines. 1,835,000 tons per year 12-month rolling sum of non-metallic material. [Minn. R. 7007.0800, subp. 2(B)]	Daily calculation and recordkeeping of material throughput for each activity, monthly calculation.	Tracking material throughput of all activities on a daily basis and using that data to calculate the 12-month rolling sum is adequate to show compliance with the throughput limit.
EQUI 3 – Line 6 Rotary Kiln	Fluorides <= 1.62 lb/hr 3-hour average CO <= 74.0 lb/hr 3-hour average VOC <= 54.3 lb/hr 3-hour average Kiln exit Temperature >= 1400 °F 3-hour rolling average [40 CFR § 52.21(j)(BACT)]	Performance Testing. Continuous monitoring of pressure drop and water flow rate at TREA 143. Continuous monitoring of kiln exit temperature. Periodic inspections of burner and fan components	Reoccurring performance testing is used to confirm emission rates. TREA 143 scrubber provides fluorides control. Monitoring of pressure drop and water flow rate ensures the scrubber is operating properly and controlling fluorides emissions. Continuous monitoring of kiln exit temperature ensures the kiln is being operated using good combustion practices and not producing excess CO or VOC emissions. Periodic inspections ensure proper burner alignment and fan operation to maintain good combustion practices.

Subject Item*	Requirement (basis)	What is the monitoring?	Why is this monitoring adequate?
	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. [40 CFR pt. 63, subp. RRRRR]	Performance testing; flow-weighted average calculation; O & M plan; CPMS for wet scrubber water flow rate and pressure drop at TREA 143	Monitoring required by 40 CFR pt. 63, subp. RRRRR is adequate to demonstrate compliance with the requirements of the standard because this standard was promulgated after November 15, 1990, and post-November 15, 1990, NSPS and NESHAPs contain adequate monitoring requirements.
	Mercury <= 0.000014 pound per long ton of pellets produced by March 8, 2027. [40 CFR pt. 63, subp. RRRRR]	TBD.	40 CFR pt. 63, subp. RRRRR lists several possible options. Minntac will need to choose an option and comply by March 8, 2027. All monitoring options within 40 CFR pt. 63, subp. RRRRR will be adequate methods to ensure compliance with the limit.
	Hydrogen Chloride <= 0.046 pound per long ton of pellets produced by March 8, 2027. [40 CFR pt. 63, subp. RRRRR]	TBD.	40 CFR pt. 63, subp. RRRRR lists several possible options. Minntac will need to choose an option and comply by March 8, 2027. All monitoring options within 40 CFR pt. 63, subp. RRRRR will be adequate methods to ensure compliance with the limit.
	Hydrogen fluoride <= 0.012 pound per long ton of pellets produced by March 8, 2027. [40 CFR pt. 63, subp. RRRRR]	TBD.	40 CFR pt. 63, subp. RRRRR lists several possible options. Minntac will need to choose an option and comply by March 8, 2027. All monitoring options within 40 CFR pt. 63, subp. RRRRR will be adequate methods to ensure compliance with the limit.
	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to 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), Minn. R. 7011.0715, subp. 3]	No additional monitoring.	Because there are no monitored violations of the NAAQS/MAAQs for which Minntac has been deemed culpable, and the facility is located outside the Mpls/St. Paul air quality control region and the city of Duluth, and is located at least 1/4 mile from any residence or public roadway, and the industrial process equipment is controlled by control equipment which has a collection efficiency of 85% by weight, this direct heating equipment is considered to be in compliance with this requirement.
	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)]	CPMS for wet scrubber water flow rate and pressure drop at TREA 143.	Monitoring requirements associated with the proper operation and maintenance of the control equipment ensure compliance with this requirement.

Subject Item*	Requirement (basis)	What is the monitoring?	Why is this monitoring adequate?
	Sulfur Dioxide <= 4.0 lb/MMBtu when burning solid fuels or 2.0 lb/MMBtu when burning liquid fuels. [Minn. R. 7011.0610, subp. 2(B)]	CEMs to measure SO ₂ emissions, fuel type and usage recordkeeping, sulfur content certification by fuel supplier.	Fuel type recordkeeping along with sulfur content certifications ensure predictable emission rates. CEMs data are used to measure SO ₂ emission rates which ensures compliance with the limit for whichever fuel type is burned at the time. If more than one fuel is burned simultaneously, calculate the emission limit as indicated in Minn. R. 7011.0605.
EQUI 146 – Line 3 Rotary Kiln	Fluorides <= 1.04 lb/hr 3-hour average	Performance Testing. Continuous monitoring of pressure drop and water flow rate at TREA 224. Continuous monitoring of kiln exit temperature. Periodic inspections of burner and fan components.	Reoccurring performance testing is used to confirm emission rates.
	CO <= 68.8 lb/hr 3-hour average		TREA 224 scrubber provides fluorides control. Monitoring of pressure drop and water flow rate ensures the scrubber is operating properly and controlling fluorides emissions.
	VOC <= 51.6 lb/hr 3-hour average		Continuous monitoring of kiln exit temperature ensures the kiln is being operated using good combustion practices and not producing excess CO or VOC emissions. Periodic inspections ensure proper burner alignment and fan operation to maintain good combustion practices.
	Kiln exit Temperature >= 1400 °F 3-hour rolling average [40 CFR § 52.21(j)(BACT)]		
	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. [40 CFR pt. 63, subp. RRRRR]	Performance testing; flow-weighted average calculation; O & M plan; CPMS for wet scrubber water flow rate and pressure drop at TREA 224.	Monitoring required by 40 CFR pt. 63, subp. RRRRR is adequate to demonstrate compliance with the requirements of the standard because this standard was promulgated after November 15, 1990, and post-November 15, 1990, NSPS and NESHAPs contain adequate monitoring requirements.
	Mercury <= 0.000014 pound per long ton of pellets produced by March 8, 2027. [40 CFR pt. 63, subp. RRRRR]	TBD.	40 CFR pt. 63, subp. RRRRR lists several possible options. Minntac will need to choose an option and comply by March 8, 2027. All monitoring options within 40 CFR pt. 63, subp. RRRRR will be adequate methods to ensure compliance with the limit.
	Hydrogen Chloride <= 0.046 pound per long ton of pellets produced by March 8, 2027. [40 CFR pt. 63, subp. RRRRR]	TBD.	40 CFR pt. 63, subp. RRRRR lists several possible options. Minntac will need to choose an option and comply by March 8, 2027. All monitoring options within 40 CFR pt. 63, subp. RRRRR will be adequate methods to ensure compliance with the limit.

Subject Item*	Requirement (basis)	What is the monitoring?	Why is this monitoring adequate?
	Hydrogen fluoride <= 0.012 pound per long ton of pellets produced by March 8, 2027. [40 CFR pt. 63, subp. RRRRR]	TBD.	40 CFR pt. 63, subp. RRRRR lists several possible options. Minntac will need to choose an option and comply by March 8, 2027. All monitoring options within 40 CFR pt. 63, subp. RRRRR will be adequate methods to ensure compliance with the limit.
	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to 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), Minn. R. 7011.0715, subp. 3]	No additional monitoring.	Because there are no monitored violations of the NAAQS/MAAQs for which Minntac has been deemed culpable, and the facility is located outside the Mpls/St. Paul air quality control region and the city of Duluth, and is located at least 1/4 mile from any residence or public roadway, and the industrial process equipment is controlled by control equipment which has a collection efficiency of 85% by weight, this direct heating equipment is considered to be in compliance with this requirement.
	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)]	CPMS for wet scrubber water flow rate and pressure drop at TREA 224.	Monitoring requirements associated with the proper operation and maintenance of the control equipment ensure compliance with this requirement.
	Sulfur Dioxide <= 4.0 lb/MMBtu when burning solid fuels or 2.0 lb/MMBtu when burning liquid fuels. [Minn. R. 7011.0610, subp. 2(B)]	CEMs to measure SO ₂ emissions, fuel type and usage recordkeeping, sulfur content certification by fuel supplier.	Fuel type recordkeeping along with sulfur content certifications ensure predictable emission rates. CEMs data are used to measure SO ₂ emission rates which ensures compliance with the limit for whichever fuel type is burned at the time. If more than one fuel is burned simultaneously, calculate the emission limit as indicated in Minn. R. 7011.0605.
EQUI 179 – Line 7 Rotary Kiln	Fluorides <= 1.62 lb/hr 3-hour average CO <= 74.0 lb/hr 3-hour average VOC <= 54.3 lb/hr 3-hour average Kiln exit Temperature >= 1400 °F 3-hour rolling average [40 CFR § 52.21(j)(BACT)]	Performance Testing. Continuous monitoring of pressure drop and water flow rate at TREA 151. Continuous monitoring of kiln exit temperature. Periodic inspections of burner and fan components.	Reoccurring performance testing is used to confirm emission rates. TREA 151 scrubber provides fluorides control. Monitoring of pressure drop and water flow rate ensures the scrubber is operating properly and controlling fluorides emissions. Continuous monitoring of kiln exit temperature ensures the kiln is being operated using good combustion practices and not producing excess CO or VOC emissions. Periodic inspections ensure proper burner alignment and fan operation to maintain good combustion practices.

Subject Item*	Requirement (basis)	What is the monitoring?	Why is this monitoring adequate?
	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. [40 CFR pt. 63, subp. RRRRR]	Performance testing; flow-weighted average calculation; O & M plan; CPMS for wet scrubber water flow rate and pressure drop at TREA 151.	Monitoring required by 40 CFR pt. 63, subp. RRRRR is adequate to demonstrate compliance with the requirements of the standard because this standard was promulgated after November 15, 1990, and post-November 15, 1990, NSPS and NESHAPs contain adequate monitoring requirements.
	Mercury ≤ 0.000014 pound per long ton of pellets produced by March 8, 2027. [40 CFR pt. 63, subp. RRRRR]	TBD.	40 CFR pt. 63, subp. RRRRR lists several possible options. Minntac will need to choose an option and comply by March 8, 2027. All monitoring options within 40 CFR pt. 63, subp. RRRRR will be adequate methods to ensure compliance with the limit.
	Hydrogen Chloride ≤ 0.046 pound per long ton of pellets produced by March 8, 2027. [40 CFR pt. 63, subp. RRRRR]	TBD.	40 CFR pt. 63, subp. RRRRR lists several possible options. Minntac will need to choose an option and comply by March 8, 2027. All monitoring options within 40 CFR pt. 63, subp. RRRRR will be adequate methods to ensure compliance with the limit.
	Hydrogen fluoride ≤ 0.012 pound per long ton of pellets produced by March 8, 2027. [40 CFR pt. 63, subp. RRRRR]	TBD.	40 CFR pt. 63, subp. RRRRR lists several possible options. Minntac will need to choose an option and comply by March 8, 2027. All monitoring options within 40 CFR pt. 63, subp. RRRRR will be adequate methods to ensure compliance with the limit.
	Particulate Matter ≤ 0.30 grains per dry standard cubic foot of exhaust gas unless required to 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), Minn. R. 7011.0715, subp. 3]	No additional monitoring.	Because there are no monitored violations of the NAAQS/MAAQs for which Minntac has been deemed culpable, and the facility is located outside the Mpls/St. Paul air quality control region and the city of Duluth, and is located at least 1/4 mile from any residence or public roadway, and the industrial process equipment is controlled by control equipment which has a collection efficiency of 85% by weight, this direct heating equipment is considered to be in compliance with this requirement.
	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)]	CPMS for wet scrubber water flow rate and pressure drop at TREA 151.	Monitoring requirements associated with the proper operation and maintenance of the control equipment ensure compliance with this requirement.

Subject Item*	Requirement (basis)	What is the monitoring?	Why is this monitoring adequate?
	Sulfur Dioxide <= 4.0 lb/MMBtu when burning solid fuels or 2.0 lb/MMBtu when burning liquid fuels. [Minn. R. 7011.0610, subp. 2(B)]	CEMs to measure SO ₂ emissions, fuel type and usage recordkeeping, sulfur content certification by fuel supplier.	Fuel type recordkeeping along with sulfur content certifications ensure predictable emission rates. CEMs data are used to measure SO ₂ emission rates which ensures compliance with the limit for whichever fuel type is burned at the time. If more than one fuel is burned simultaneously, calculate the emission limit as indicated in Minn. R. 7011.0605.
EQUI 279 – Line 4 Rotary Kiln	Fluorides <= 1.62 lb/hr 3-hour average	Performance Testing. Continuous monitoring of pressure drop and water flow rate at TREA 37. Continuous monitoring of kiln exit temperature. Periodic inspections of burner and fan components.	Reoccurring performance testing is used to confirm emission rates.
	CO <= 98.6 lb/hr 3-hour average		TREA 37 scrubber provides fluorides control. Monitoring of pressure drop and water flow rate ensures the scrubber is operating properly and controlling fluorides emissions.
	VOC <= 74.0 lb/hr 3-hour average		Continuous monitoring of kiln exit temperature ensures the kiln is being operated using good combustion practices and not producing excess CO or VOC emissions. Periodic inspections ensure proper burner alignment and fan operation to maintain good combustion practices.
	Kiln exit Temperature >= 1400 °F 3-hour rolling average [40 CFR § 52.21(j)(BACT)]		
	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. [40 CFR pt. 63, subp. RRRRR]	Performance testing; flow-weighted average calculation; O & M plan; CPMS for wet scrubber water flow rate and pressure drop at TREA.	Monitoring required by 40 CFR pt. 63, subp. RRRRR is adequate to demonstrate compliance with the requirements of the standard because this standard was promulgated after November 15, 1990, and post-November 15, 1990, NSPS and NESHAPs contain adequate monitoring requirements.
	Mercury <= 0.000014 pound per long ton of pellets produced by March 8, 2027. [40 CFR pt. 63, subp. RRRRR]	TBD.	40 CFR pt. 63, subp. RRRRR lists several possible options. Minntac will need to choose an option and comply by March 8, 2027. All monitoring options within 40 CFR pt. 63, subp. RRRRR will be adequate methods to ensure compliance with the limit.
	Hydrogen Chloride <= 0.046 pound per long ton of pellets produced by March 8, 2027. [40 CFR pt. 63, subp. RRRRR]	TBD.	40 CFR pt. 63, subp. RRRRR lists several possible options. Minntac will need to choose an option and comply by March 8, 2027. All monitoring options within 40 CFR pt. 63, subp. RRRRR will be adequate methods to ensure compliance with the limit.

Subject Item*	Requirement (basis)	What is the monitoring?	Why is this monitoring adequate?
	Hydrogen fluoride <= 0.012 pound per long ton of pellets produced by March 8, 2027. [40 CFR pt. 63, subp. RRRRR]	TBD.	40 CFR pt. 63, subp. RRRRR lists several possible options. Minntac will need to choose an option and comply by March 8, 2027. All monitoring options within 40 CFR pt. 63, subp. RRRRR will be adequate methods to ensure compliance with the limit.
	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to 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), Minn. R. 7011.0715, subp. 3]	No additional monitoring.	Because there are no monitored violations of the NAAQS/MAAQs for which Minntac has been deemed culpable, and the facility is located outside the Mpls/St. Paul air quality control region and the city of Duluth, and is located at least 1/4 mile from any residence or public roadway, and the industrial process equipment is controlled by control equipment which has a collection efficiency of 85% by weight, this direct heating equipment is considered to be in compliance with this requirement.
	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)]	CPMS for wet scrubber water flow rate and pressure drop at TREA 37.	Monitoring requirements associated with the proper operation and maintenance of the control equipment ensure compliance with this requirement.
	Sulfur Dioxide <= 4.0 lb/MMBtu when burning solid fuels or 2.0 lb/MMBtu when burning liquid fuels. [Minn. R. 7011.0610, subp. 2(B)]	CEMs to measure SO ₂ emissions, fuel type and usage recordkeeping, sulfur content certification by fuel supplier.	Fuel type recordkeeping along with sulfur content certifications ensure predictable emission rates. CEMs data are used to measure SO ₂ emission rates which ensures compliance with the limit for whichever fuel type is burned at the time. If more than one fuel is burned simultaneously, calculate the emission limit as indicated in Minn. R. 7011.0605.
EQUI 280 – Line 5 Rotary Kiln	Fluorides <= 1.62 lb/hr 3-hour average CO <= 98.6 lb/hr 3-hour average VOC <= 74.0 lb/hr 3-hour average Kiln exit Temperature >= 1400 °F 3-hour rolling average [40 CFR § 52.21(j)(BACT)]	Performance Testing. Continuous monitoring of pressure drop and water flow rate at TREA 38. Continuous monitoring of kiln exit temperature. Periodic inspections of burner and fan components.	Reoccurring performance testing is used to confirm emission rates. TREA 38 scrubber provides fluorides control. Monitoring of pressure drop and water flow rate ensures the scrubber is operating properly and controlling fluorides emissions. Continuous monitoring of kiln exit temperature ensures the kiln is being operated using good combustion practices and not producing excess CO or VOC emissions. Periodic inspections ensure proper burner alignment and fan operation to maintain good combustion practices.

Subject Item*	Requirement (basis)	What is the monitoring?	Why is this monitoring adequate?
	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. [40 CFR pt. 63, subp. RRRRR]	Performance testing; flow-weighted average calculation; O & M plan; CPMS for wet scrubber water flow rate and pressure drop at TREA 38.	Monitoring required by 40 CFR pt. 63, subp. RRRRR is adequate to demonstrate compliance with the requirements of the standard because this standard was promulgated after November 15, 1990, and post-November 15, 1990, NSPS and NESHAPs contain adequate monitoring requirements.
	Mercury ≤ 0.000014 pound per long ton of pellets produced by March 8, 2027. [40 CFR pt. 63, subp. RRRRR]	TBD.	40 CFR pt. 63, subp. RRRRR lists several possible options. Minntac will need to choose an option and comply by March 8, 2027. All monitoring options within 40 CFR pt. 63, subp. RRRRR will be adequate methods to ensure compliance with the limit.
	Hydrogen Chloride ≤ 0.046 pound per long ton of pellets produced by March 8, 2027. [40 CFR pt. 63, subp. RRRRR]	TBD.	40 CFR pt. 63, subp. RRRRR lists several possible options. Minntac will need to choose an option and comply by March 8, 2027. All monitoring options within 40 CFR pt. 63, subp. RRRRR will be adequate methods to ensure compliance with the limit.
	Hydrogen fluoride ≤ 0.012 pound per long ton of pellets produced by March 8, 2027. [40 CFR pt. 63, subp. RRRRR]	TBD.	40 CFR pt. 63, subp. RRRRR lists several possible options. Minntac will need to choose an option and comply by March 8, 2027. All monitoring options within 40 CFR pt. 63, subp. RRRRR will be adequate methods to ensure compliance with the limit.
	Particulate Matter ≤ 0.30 grains per dry standard cubic foot of exhaust gas unless required to 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), Minn. R. 7011.0715, subp. 3]	No additional monitoring.	Because there are no monitored violations of the NAAQS/MAAQs for which Minntac has been deemed culpable, and the facility is located outside the Mpls/St. Paul air quality control region and the city of Duluth, and is located at least 1/4 mile from any residence or public roadway, and the industrial process equipment is controlled by control equipment which has a collection efficiency of 85% by weight, this direct heating equipment is considered to be in compliance with this requirement.
	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)]	CPMS for wet scrubber water flow rate and pressure drop at TREA 38.	Monitoring requirements associated with the proper operation and maintenance of the control equipment ensure compliance with this requirement.

Subject Item*	Requirement (basis)	What is the monitoring?	Why is this monitoring adequate?
	Sulfur Dioxide <= 4.0 lb/MMBtu when burning solid fuels or 2.0 lb/MMBtu when burning liquid fuels. [Minn. R. 7011.0610, subp. 2(B)]	CEMs to measure SO ₂ emissions, fuel type and usage recordkeeping, sulfur content certification by fuel supplier.	Fuel type recordkeeping along with sulfur content certifications ensure predictable emission rates. CEMs data are used to measure SO ₂ emission rates which ensures compliance with the limit for whichever fuel type is burned at the time. If more than one fuel is burned simultaneously, calculate the emission limit as indicated in Minn. R. 7011.0605.
EQUI 5 - EQUI 42, EQUI 47 - EQUI 104, EQUI 122 - EQUI 123, EQUI 136 - EQUI 144, EQUI 147, EQUI 149 - EQUI 178, EQUI 206 - EQUI 254, EQUI 269, EQUI 278, EQUI 281, EQUI 283 - EQUI 310, EQUI 313 - EQUI 316, EQUI 318 - EQUI 348, EQUI 351 - EQUI 372, EQUI 374, EQUI 375, EQUI 377 - EQUI 395	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]	See associated control equipment for specific monitoring.	Other limits throughout the permit (and associated monitoring) ensure that this applicable requirement is being met. Each unit is controlled by a baghouse or scrubber, and each baghouse and scrubber at the facility ensures these requirements are met.
	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subps. 1(A) and 3]	No additional monitoring needed.	Because there are no monitored violations of the NAAQS/MAAQs for which Minntac has been deemed culpable, and the facility is located at least 1/4 mile from any residence or public roadway, and each unit of industrial process equipment is controlled by control equipment which has a collection efficiency of 85% by weight, this industrial process equipment is considered to be in compliance with this requirement.
EQUI 41, EQUI 267, EQUI 268, EQUI 350, EQUI	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]	Recurring performance testing; daily visible emissions checks.	Opacity performance testing is completed every 30 months (same schedule as each corresponding rotary kiln). Corrective actions completed if VE occur.

Subject Item*	Requirement (basis)	What is the monitoring?	Why is this monitoring adequate?
370 – Pellet Coolers	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, subps. 1(A) and 3]	Recurring performance testing; daily visible emissions checks..	Particulate performance testing is completed every 30 months (same schedule as each corresponding rotary kiln). Lack of visible emissions is expected to correspond with PM limit compliance on a daily basis. PTE for 4 out of 5 pellet coolers demonstrates compliance with corresponding IPER limit. The PTE of EQUI 268, Line 7 pellet cooler, does not. PTE is calculated by taking the maximum rated airflow and multiplying by the average gr/dscf emission factor from recent performance tests. Performance tests where the airflow is lower (75,000-100,000 dscfm) have resulted in the highest emission rates in terms of gr/dscf. Based on this trend, it is reasonable to assume that airflow and gr/dscf are inversely related. Therefore, calculating PTE using the maximum airflow is a conservative calculation method and likely not appropriate for demonstrating compliance with the PM limit. From testing in the last 10 years, the highest lb/hr value has been 37.5 lb/hr compared to the allowable emission rate based on process weight rate of 48.2 lb/hr. Minntac will continue to demonstrate compliance at EQUI 268 through performance testing.
EQUI 46, EQUI 273 – L4 Pellet Screen Fine Belt	Filterable Particulate Matter $\leq$ 0.022 gr/dscf [40 CFR pt. 60, subp. LL]	Initial performance testing; CPMS for wet scrubber water flow rate and pressure drop at TREA 108 and TREA 133.	Monitoring required by 40 CFR pt. 60, subp. LL is adequate to demonstrate compliance with the requirements of the standard because this standard was promulgated after November 15, 1990, and post-November 15, 1990, NSPS and NESHAPs contain adequate monitoring requirements.
EQUI 52, EQUI 53 – Conveyor Transfer 005	Particulate Matter $\leq$ 0.02 gr/dscf PM₁₀ $\leq$ 0.01 gr/dscf [Limits to avoid PSD major modification]	Periodic performance testing; CPMS for baghouse pressure drop at TREA 219 and TREA 220	Proper operation and control of the fabric filters as required by NESHAP RRRRR. Reoccurring performance testing is used to confirm emission rates.
	Opacity $\leq$ 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]	See TREA 219 and TREA 220 for specific monitoring.	Other limits throughout the permit (and associated monitoring) ensure that this applicable requirement is being met. Each unit is controlled by a baghouse or scrubber, and each baghouse and scrubber at the facility ensures these requirements are met.

Subject Item*	Requirement (basis)	What is the monitoring?	Why is this monitoring adequate?
	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, subps. 1(A) and 3]	No additional monitoring needed.	Because there are no monitored violations of the NAAQS/MAAQS for which Minntac has been deemed culpable, and the facility is located outside the Mpls/St. Paul air quality control region and the city of Duluth, and is located at least 1/4 mile from any residence or public roadway, and each unit of industrial process equipment is controlled by control equipment which has a collection efficiency of 85% by weight, this industrial process equipment is considered to be in compliance with this requirement.
EQUI 108 - EQUI 118, EQUI 124 - EQUI 127, EQUI 148, EQUI 180 - EQUI 191, EQUI 267, EQUI 268, EQUI 270, EQUI 350, EQUI 697- EQUI 702 – Conveyor Gallery Vents (MACT Exempt)	Opacity $\leq$ 20 percent Particulate Matter $\leq$ 0.30 gr/dscf [Minn. R. 7011.0715, subp. 1(A)&(B)]	None.	These emission units primarily vent steam from cooling finished pellets and are not reasonably expected to generate particulate matter.
EQUI 196 - EQUI 198 – Boilers constructed before 1977	Unit is not subject to any numerical limits in DDDDD, only work practice standards. [40 CFR pt. 63, subp. DDDDD]	Boiler tune-ups every 5 years; maintain an optimum air to fuel ratio; recordkeeping, reporting	Monitoring required by 40 CFR pt. 63, subp. DDDDD is adequate to demonstrate compliance with the requirements of the standard because this standard was promulgated after November 15, 1990, and post-November 15, 1990, NSPS and NESHAPs contain adequate monitoring requirements.
	Filterable PM $\leq$ 0.6 lb/MMBtu Opacity $\leq$ 20 percent, with exceptions. SO ₂ $\leq$ 2.0 lb/MMBtu [Minn. R. 7011.0510, subps. 1&2]	Recordkeeping: fuel records.	All units use natural gas, propane, or No. 2 fuel oil for limited periods, only; therefore, the likelihood of violating either of the emission limits is very small. The Permittee can demonstrate that these units will continue to operate such that emissions are well below the emission limits by only burning natural gas, propane, or No. 2 fuel oil. Design based PM PTE for each unit, using AP-42, is 0.016 lbs/MMBtu of PM compared to the rule limit of 0.6 lbs/MMBtu of PM. Design based SO ₂ PTE for each unit, using AP-42 is 0.5 lb/MMBtu compared to the rule limit of 2.0 lb/MMBtu.

Subject Item*	Requirement (basis)	What is the monitoring?	Why is this monitoring adequate?
EQUI 199 - EQUI 202 – Boilers constructed after 1977	Unit is not subject to any numerical limits in DDDDD, only work practice standards. [40 CFR pt. 63, subp. DDDDD]	Boiler tune-ups every 5 years; maintain an optimum air to fuel ratio; recordkeeping, reporting	Monitoring required by 40 CFR pt. 63, subp. DDDDD is adequate to demonstrate compliance with the requirements of the standard because this standard was promulgated after November 15, 1990, and post-November 15, 1990, NSPS and NESHAPs contain adequate monitoring requirements.
	Filterable PM <= 0.4 lb/MMBtu Opacity <= 20 percent, with exceptions. SO ₂ <= 2.0 lb/MMBtu [Minn. R. 7011.0510, subps. 1&2]	Recordkeeping: fuel records.	All units use natural gas, propane, or No. 2 fuel oil for limited periods, only; therefore, the likelihood of violating either of the emission limits is very small. The Permittee can demonstrate that these units will continue to operate such that emissions are well below the emission limits by only burning only. Design based PM PTE for each unit, using AP-42, is 0.016 lbs/MMBtu of PM compared to the rule limit of 0.4 lbs/MMBtu of PM. Designed based SO ₂ PTE for each unit, using AP-42 is 0.5 lb/MMBtu compared to the rule limit of 2.0 lb/MMBtu.
EQUI 255 – Heaters	Filterable PM <= 0.4 lb/MMBtu Opacity <= 20 percent, with exceptions. [Minn. R. 7011.0515, subp. 1(A)&(B)]	Recordkeeping: fuel records.	All units use natural gas only; therefore, the likelihood of violating either of the emission limits is very small. The Permittee can demonstrate that these units will continue to operate such that emissions are well below the emission limits by only burning only. Design based PM PTE for each unit, using AP-42, is 0.0077 lbs/MMBtu of PM compared to the rule limit of 0.4 lbs/MMBtu of PM.
EQUI 266 – Hill Wood Products System	Opacity <= 20 percent Particulate Matter <= 0.30 gr/dscf [Minn. R. 7011.0715, subps. 1(A) and 3]	No additional monitoring needed.	Because there are no monitored violations of the NAAQS/MAAQs for which Minntac has been deemed culpable, and the facility is located outside the Mpls/St. Paul air quality control region and the city of Duluth, and is located at least 1/4 mile from any residence or public roadway, and each unit of industrial process equipment is controlled by control equipment which has a collection efficiency of 85% by weight, this industrial process equipment is considered to be in compliance with this requirement.
	Process throughput <= 220,000 wood waste [Limit to avoid PSD major modification]	Limit to avoid PSD.	Minntac is able to use daily records of wood waste received to calculate monthly and 12-month rolling sum throughput. Because EQUI 266 is not likely to operate uniformly throughout the year, a 12-month rolling sum is adequate to ensure the facility remains below PSD thresholds.

Subject Item*	Requirement (basis)	What is the monitoring?	Why is this monitoring adequate?
EQUI 274, EQUI 688, EQUI 689, EQUI 690, EQUI 691, EQUI 692, EQUI 693, EQUI 694, EQUI 695, EQUI 696 – Existing Emergency Engines	Opacity <= 20 percent. Sulfur Dioxide <= 0.0015 pounds per million Btu heat input. [Minn. R. 7011.2300]	Monthly recordkeeping of fuel type usage.	These engines use ultra-low sulfur diesel only; therefore, the likelihood of violating either of the limits is very small. The Permittee can demonstrate that the unit will continue to operate such that emissions meet the emission limits by only burning ultra-low sulfur diesel. PTE is 0.0015 lb of SO ₂ /MMBtu.
EQUI 275, EQUI 704, EQUI 705 – Limestone Handling Subject to NSPS OOO	Opacity <= 10 percent opacity. PM <= 0.022 gr/dscf [40 CFR pt. 60, subp. OOO]	Initial performance test, periodic visible emissions checks, monitoring requirements at TREA 90 and TREA 214	Monitoring required by 40 CFR pt. 60, subp. OOO is adequate to demonstrate compliance with the requirements of the standard because this standard was promulgated after November 15, 1990, and post-November 15, 1990, NSPS and NESHAPs contain adequate monitoring requirements. Historic testing since 2015 indicates that EQUI 275 and EQUI 705 operate with emissions approximately 3% of the PM standard.
EQUI 282, EQUI 311, EQUI 312, EQUI 317, EQUI 376 – Zinc Melt Furnaces	Opacity <= 20 percent. Particulate Matter <= 0.30 gr/dscf [Minn. R. 7011.0610]	Recordkeeping: fuel records	These units use diesel fuel only; therefore, the likelihood of violating either of the emission limits is very small. The Permittee can demonstrate that these units will continue to operate such that emissions are well below the emission limits by only burning diesel fuel. Design based PTE, using AP-42, is 0.019 lbs/hr of PM compared to the rule limit of 18.8 lbs/hr of PM based on airflow.
EQUI 373 – Electric Shop Curing oven	Opacity <= 20 percent. Particulate Matter <= 0.30 gr/dscf [Minn. R. 7011.0610]	Recordkeeping: fuel records	These units uses natural only; therefore, the likelihood of violating either of the emission limits is very small. The Permittee can demonstrate that these units will continue to operate such that emissions are well below the emission limits by only burning diesel fuel. Design based PTE, using AP-42, is 0.004 lbs/hr of PM compared to the rule limit of 18.8 lbs/hr of PM based on airflow.

Subject Item*	Requirement (basis)	What is the monitoring?	Why is this monitoring adequate?
EQUI 671 – Diesel Emergency Generator, Concentrator	Sulfur Content of Fuel <=15.0 ppm NMHC+NOx <= 6.4 g/kWh PM <= 0.2 g/kWh CO <= 3.5 g/kWh Opacity <= 20 percent during acceleration mode Opacity <= 15 percent during lugging mode [40 CFR pt. 60, subp. IIII & Minn. R. 7011.2305]	Fuel Supplier Certification for each shipment of diesel fuel. Non-resettable hour meter, and recordkeeping. Purchase certified engine and: 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 parts 1039, 1042, and/or 1068 as they apply.	Monitoring required by the NSPS is adequate to demonstrate compliance with the requirements because this standard was promulgated after November 15, 1990, and post-November 15, 1990, NSPS and NESHAPs contain adequate monitoring requirements.
	Opacity <= 20 percent. Sulfur Dioxide <= 0.0015 pounds per million Btu heat input. [Minn. R. 7011.2300]	Monthly recordkeeping of fuel type usage.	

Subject Item*	Requirement (basis)	What is the monitoring?	Why is this monitoring adequate?
EQUI 672, EQUI 703	Sulfur Content of Fuel <=15.0 ppm NMHC+NOx <= 7.5 g/kWh PM <= 0.4 g/kWh CO <= 5.0 g/kWh Opacity <= 20 percent during acceleration mode Opacity <= 15 percent during lugging mode [40 CFR pt. 60, subp. IIII & Minn. R. 7011.2305]	Fuel Supplier Certification for each shipment of diesel fuel. Non-resettable hour meter, and recordkeeping. Purchase certified engine and: 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 parts 1039, 1042, and/or 1068 as they apply.	Monitoring required by the NSPS is adequate to demonstrate compliance with the requirements because this standard was promulgated after November 15, 1990, and post-November 15, 1990, NSPS and NESHAPs contain adequate monitoring requirements.
	Opacity <= 20 percent. Sulfur Dioxide <= 0.0015 pounds per million Btu heat input. [Minn. R. 7011.2300]	Monthly recordkeeping of fuel type usage.	These engines use ultra-low sulfur diesel only; therefore, the likelihood of violating either of the limits is very small. The Permittee can demonstrate that the unit will continue to operate such that emissions meet the emission limits by only burning natural gas. PTE is 0.0015 lb of SO ₂ /MMBtu.
EQUI 673, EQUI 674, EQUI 675 – New Tertiary Crushers	Filterable Particulate Matter <= 0.022 gr/dscf [40 CFR pt. 60, subp. LL & Minn. R. 7011.2700]	Performance test requirements at individual testing groups and EQUIs; CPMS for wet scrubber water flow rate	Proper operation of the control equipment in accordance with NESHAP RRRRR (a post-1990 standard) is adequate to demonstrate compliance with the particulate matter standard in NSPS LL.
EQUI 676 – Clean up materials	Opacity <= 20 percent Particulate Matter <= 0.30 gr/dscf [Minn. R. 7011.0715]	None.	Clean up materials consist of solvents and are not reasonable expected to generate particulate matter.

Subject Item*	Requirement (basis)	What is the monitoring?	Why is this monitoring adequate?
EQUI 678-EQUI 683 – HPGR Grinding and conveying	Opacity <= 20 percent Particulate Matter <= 0.30 gr/dscf [Minn. R. 7011.0715]	None.	EQUI 678-683 vent indoors. The maximum emission rate from one of these emission units is 1.67 lb/hr compared to the minimum applicable rule limit at maximum process weight rate of 55.12 lb/hr.
EQUI 684, EQUI 685 – Coal Handling Equipment	Opacity <= 20 percent Particulate Matter <= 0.30 gr/dscf [Minn. R. 7011.0715]	Visible emissions checks.	VE checks when operating ensure proper operation of the equipment. EQUI 684 and EQUI 685 have a maximum emission rate of 0.04 lb/hr compared to the rule limit of 30.4 lb/hr based on process weight.
EQUI 706 - Reciprocating IC Engine	Sulfur Content of Fuel <=15.0 ppm NMHC+NOx <= 4.0 g/kWh PM <= 0.2 g/kWh CO <= 3.5 g/kWh Opacity <= 20 percent during acceleration mode Opacity <= 15 percent during lugging mode [40 CFR pt. 60, subp. IIII & Minn. R. 7011.2305]	Fuel Supplier Certification for each shipment of diesel fuel. Non-resettable hour meter, and recordkeeping. Purchase certified engine and: 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 parts 1039, 1042, and/or 1068 as they apply.	Monitoring required by the NSPS is adequate to demonstrate compliance with the requirements because this standard was promulgated after November 15, 1990, and post-November 15, 1990, NSPS and NESHAPs contain adequate monitoring requirements.
	Opacity <= 20 percent. Sulfur Dioxide <= 0.0015 pounds per million Btu heat input. [Minn. R. 7011.2300]	Monthly recordkeeping of fuel type usage.	These engines use ultra-low sulfur diesel only; therefore, the likelihood of violating either of the limits is very small. The Permittee can demonstrate that the unit will continue to operate such that emissions meet the emission limits by only burning natural gas. PTE is 0.0015 lb of SO ₂ /MMBtu.

Subject Item*	Requirement (basis)	What is the monitoring?	Why is this monitoring adequate?
TREA 37 – Line 4 Waste Gas Scrubber	PM $\geq$ 97.1 percent control efficiency. PM < 10 micron $\geq$ 89.2 percent control efficiency. PM < 2.5 micron $\geq$ 81.9 percent control efficiency. [Minn. R. 7007.0800, subp. 2(A) and (B)] Pressure Drop $\geq$ 6.6 and $\leq$ 12.0 inches of water (Pressure Drop Range Limit). Water flow rate $\geq$ 2322 gallons per minute daily average. [Title I condition: 40 CFR 52.21(j)(BACT) and 40 CFR 63.9560(b)(1) & Minn. R. 7011.8030]	Periodic inspections; CPMS for water flow rate and pressure drop; O & M plan; corrective actions; recordkeeping; performance tests	Monitoring required by 40 CFR pt. 63, subp. RRRRR is adequate to demonstrate compliance with the requirements of the standard because this standard was promulgated after November 15, 1990, and post-November 15, 1990, NSPS and NESHAPs contain adequate monitoring requirements. The permit allows the Pressure Drop and Flow Rate limits to be re-set using approved replicable methodology (ARM). The ARM re-sets the Pressure Drop and Flow Rate limits based on performance testing that demonstrates compliance. In this instance, as long as the Permittee is implementing the ARM as required by the permit, the permit does not need to be reopened to revise the control equipment parameter limit. The Notice of Compliance that approves the new limit using an ARM will be filed with the permit. Every level of permit action (from administrative amendment to major amendment) can be used to incorporate revised parameter limits that were previously approved via an ARM.
TREA 38 – Line 5 Waste Gas Scrubber	PM $\geq$ 97.1 percent control efficiency. PM < 10 micron $\geq$ 89.2 percent control efficiency. PM < 2.5 micron $\geq$ 81.9 percent control efficiency. [Minn. R. 7007.0800, subp. 2(A) and (B)] Pressure Drop $\geq$ 6.5 and $\leq$ 12.0 inches of water (Pressure Drop Range Limit). Water flow rate $\geq$ 2298 gallons per minute daily average. [Title I condition: 40 CFR 52.21(j)(BACT) and 40 CFR 63.9560(b)(1) & Minn. R. 7011.8030]	Periodic inspections; CPMS for water flow rate and pressure drop; O & M plan; corrective actions; recordkeeping; performance tests	Monitoring required by 40 CFR pt. 63, subp. RRRRR is adequate to demonstrate compliance with the requirements of the standard because this standard was promulgated after November 15, 1990, and post-November 15, 1990, NSPS and NESHAPs contain adequate monitoring requirements. The permit allows the Pressure Drop and Flow Rate limits to be re-set using approved replicable methodology (ARM). The ARM re-sets the Pressure Drop and Flow Rate limits based on performance testing that demonstrates compliance. In this instance, as long as the Permittee is implementing the ARM as required by the permit, the permit does not need to be reopened to revise the control equipment parameter limit. The Notice of Compliance that approves the new limit using an ARM will be filed with the permit. Every level of permit action (from administrative amendment to major amendment) can be used to incorporate revised parameter limits that were previously approved via an ARM.

Subject Item*	Requirement (basis)	What is the monitoring?	Why is this monitoring adequate?
TREA 48, TREA 49, TREA 50, TREA 51, TREA 52 – Step I Secondary Crusher Scrubbers	PM $\geq$ 95.0 percent control efficiency. PM < 10 micron $\geq$ 94.3 percent control efficiency. PM < 2.5 micron $\geq$ 90.0 percent control efficiency. Pressure Drop $\geq$ 4.2 and $\leq$ 12.0 inches of water (Pressure Drop Range Limit). Water flow rate $\geq$ 21.3 gallons per minute daily average. [Minn. R. 7007.0800, subp. 2(A) and (B) and 40 CFR 63.9560(b)(1) & Minn. R. 7011.8030]	Periodic inspections; CPMS for water flow rate and pressure drop; O & M plan; corrective actions; recordkeeping; performance tests	Monitoring required by 40 CFR pt. 63, subp. RRRRR is adequate to demonstrate compliance with the requirements of the standard because this standard was promulgated after November 15, 1990, and post-November 15, 1990, NSPS and NESHAPs contain adequate monitoring requirements. The permit allows the Pressure Drop and Flow Rate limits to be re-set using approved replicable methodology (ARM). The ARM re-sets the Pressure Drop and Flow Rate limits based on performance testing that demonstrates compliance. In this instance, as long as the Permittee is implementing the ARM as required by the permit, the permit does not need to be reopened to revise the control equipment parameter limit. The Notice of Compliance that approves the new limit using an ARM will be filed with the permit. Every level of permit action (from administrative amendment to major amendment) can be used to incorporate revised parameter limits that were previously approved via an ARM.
TREA 53 – Step I Conveyor Transfer 008 to 009 Scrubber	PM $\geq$ 95.0 percent control efficiency. PM < 10 micron $\geq$ 94.3 percent control efficiency. PM < 2.5 micron $\geq$ 90.0 percent control efficiency. Pressure Drop $\geq$ 3.9 and $\leq$ 12.0 inches of water (Pressure Drop Range Limit). Water flow rate $\geq$ 13.9 gallons per minute daily average. [Minn. R. 7007.0800, subp. 2(A) and (B) and 40 CFR 63.9560(b)(1) & Minn. R. 7011.8030]	Periodic inspections; CPMS for water flow rate and pressure drop; O & M plan; corrective actions; recordkeeping; performance tests	Monitoring required by 40 CFR pt. 63, subp. RRRRR is adequate to demonstrate compliance with the requirements of the standard because this standard was promulgated after November 15, 1990, and post-November 15, 1990, NSPS and NESHAPs contain adequate monitoring requirements. The permit allows the Pressure Drop and Flow Rate limits to be re-set using approved replicable methodology (ARM). The ARM re-sets the Pressure Drop and Flow Rate limits based on performance testing that demonstrates compliance. In this instance, as long as the Permittee is implementing the ARM as required by the permit, the permit does not need to be reopened to revise the control equipment parameter limit. The Notice of Compliance that approves the new limit using an ARM will be filed with the permit. Every level of permit action (from administrative amendment to major amendment) can be used to incorporate revised parameter limits that were previously approved via an ARM.

Subject Item*	Requirement (basis)	What is the monitoring?	Why is this monitoring adequate?
TREA 54, TREA 55 – Storage Bin Scrubbers	PM $\geq$ 95.0 percent control efficiency. PM < 10 micron $\geq$ 94.3 percent control efficiency. PM < 2.5 micron $\geq$ 90.0 percent control efficiency. Pressure Drop $\geq$ 3.0 and $\leq$ 12.0 inches of water (Pressure Drop Range Limit). Water flow rate $\geq$ 14.5 gallons per minute daily average. [Minn. R. 7007.0800, subp. 2(A) and (B) and 40 CFR 63.9560(b)(1) & Minn. R. 7011.8030]	Periodic inspections; CPMS for water flow rate and pressure drop; O & M plan; corrective actions; recordkeeping; performance tests	Monitoring required by 40 CFR pt. 63, subp. RRRRR is adequate to demonstrate compliance with the requirements of the standard because this standard was promulgated after November 15, 1990, and post-November 15, 1990, NSPS and NESHAPs contain adequate monitoring requirements. The permit allows the Pressure Drop and Flow Rate limits to be re-set using approved replicable methodology (ARM). The ARM re-sets the Pressure Drop and Flow Rate limits based on performance testing that demonstrates compliance. In this instance, as long as the Permittee is implementing the ARM as required by the permit, the permit does not need to be reopened to revise the control equipment parameter limit. The Notice of Compliance that approves the new limit using an ARM will be filed with the permit. Every level of permit action (from administrative amendment to major amendment) can be used to incorporate revised parameter limits that were previously approved via an ARM.
TREA 57, TREA 58, TREA 59 – Step III Secondary Crusher Scrubbers	PM $\geq$ 95.0 percent control efficiency. PM < 10 micron $\geq$ 94.3 percent control efficiency. PM < 2.5 micron $\geq$ 90.0 percent control efficiency. Pressure Drop $\geq$ 4.4 and $\leq$ 10.0 inches of water (Pressure Drop Range Limit). Water flow rate $\geq$ 24.5 gallons per minute daily average. [Minn. R. 7007.0800, subp. 2(A) and (B) and 40 CFR 63.9560(b)(1) & Minn. R. 7011.8030]	Periodic inspections; CPMS for water flow rate and pressure drop; O & M plan; corrective actions; recordkeeping; performance tests	Monitoring required by 40 CFR pt. 63, subp. RRRRR is adequate to demonstrate compliance with the requirements of the standard because this standard was promulgated after November 15, 1990, and post-November 15, 1990, NSPS and NESHAPs contain adequate monitoring requirements. The permit allows the Pressure Drop and Flow Rate limits to be re-set using approved replicable methodology (ARM). The ARM re-sets the Pressure Drop and Flow Rate limits based on performance testing that demonstrates compliance. In this instance, as long as the Permittee is implementing the ARM as required by the permit, the permit does not need to be reopened to revise the control equipment parameter limit. The Notice of Compliance that approves the new limit using an ARM will be filed with the permit. Every level of permit action (from administrative amendment to major amendment) can be used to incorporate revised parameter limits that were previously approved via an ARM.

Subject Item*	Requirement (basis)	What is the monitoring?	Why is this monitoring adequate?
TREA 62, TREA 63, TREA 64 – Conveyor Transfer Scrubbers	PM $\geq$ 95.0 percent control efficiency. PM < 10 micron $\geq$ 94.3 percent control efficiency. PM < 2.5 micron $\geq$ 90.0 percent control efficiency. Pressure Drop $\geq$ 3.3 and $\leq$ 10.0 inches of water (Pressure Drop Range Limit). Water flow rate $\geq$ 14.0 gallons per minute daily average. [Minn. R. 7007.0800, subp. 2(A) and (B) and 40 CFR 63.9560(b)(1) & Minn. R. 7011.8030]	Periodic inspections; CPMS for water flow rate and pressure drop; O & M plan; corrective actions; recordkeeping; performance tests	Monitoring required by 40 CFR pt. 63, subp. RRRRR is adequate to demonstrate compliance with the requirements of the standard because this standard was promulgated after November 15, 1990, and post-November 15, 1990, NSPS and NESHAPs contain adequate monitoring requirements. The permit allows the Pressure Drop and Flow Rate limits to be re-set using approved replicable methodology (ARM). The ARM re-sets the Pressure Drop and Flow Rate limits based on performance testing that demonstrates compliance. In this instance, as long as the Permittee is implementing the ARM as required by the permit, the permit does not need to be reopened to revise the control equipment parameter limit. The Notice of Compliance that approves the new limit using an ARM will be filed with the permit. Every level of permit action (from administrative amendment to major amendment) can be used to incorporate revised parameter limits that were previously approved via an ARM.
TREA 65 – Step III Tertiary Storage Bins Scrubber	PM $\geq$ 95.0 percent control efficiency. PM < 10 micron $\geq$ 94.3 percent control efficiency. PM < 2.5 micron $\geq$ 90.0 percent control efficiency. Pressure Drop $\geq$ 3.9 and $\leq$ 10.0 inches of water (Pressure Drop Range Limit). Water flow rate $\geq$ 14.3 gallons per minute daily average. [Minn. R. 7007.0800, subp. 2(A) and (B) and 40 CFR 63.9560(b)(1) & Minn. R. 7011.8030]	Periodic inspections; CPMS for water flow rate and pressure drop; O & M plan; corrective actions; recordkeeping; performance tests	Monitoring required by 40 CFR pt. 63, subp. RRRRR is adequate to demonstrate compliance with the requirements of the standard because this standard was promulgated after November 15, 1990, and post-November 15, 1990, NSPS and NESHAPs contain adequate monitoring requirements. The permit allows the Pressure Drop and Flow Rate limits to be re-set using approved replicable methodology (ARM). The ARM re-sets the Pressure Drop and Flow Rate limits based on performance testing that demonstrates compliance. In this instance, as long as the Permittee is implementing the ARM as required by the permit, the permit does not need to be reopened to revise the control equipment parameter limit. The Notice of Compliance that approves the new limit using an ARM will be filed with the permit. Every level of permit action (from administrative amendment to major amendment) can be used to incorporate revised parameter limits that were previously approved via an ARM.

Subject Item*	Requirement (basis)	What is the monitoring?	Why is this monitoring adequate?
TREA 66, TREA 67, TREA 68, TREA 69, TREA 70, TREA 71 – Step III Tertiary Crusher Scrubbers	PM $\geq$ 95.0 percent control efficiency. PM < 10 micron $\geq$ 94.3 percent control efficiency. PM < 2.5 micron $\geq$ 90.0 percent control efficiency. Pressure Drop $\geq$ 4.0 and $\leq$ 10.0 inches of water (Pressure Drop Range Limit). Water flow rate $\geq$ 21.8 gallons per minute daily average. [Minn. R. 7007.0800, subp. 2(A) and (B) and 40 CFR 63.9560(b)(1) & Minn. R. 7011.8030]	Periodic inspections; CPMS for water flow rate and pressure drop; O & M plan; corrective actions; recordkeeping; performance tests	Monitoring required by 40 CFR pt. 63, subp. RRRRR is adequate to demonstrate compliance with the requirements of the standard because this standard was promulgated after November 15, 1990, and post-November 15, 1990, NSPS and NESHAPs contain adequate monitoring requirements. The permit allows the Pressure Drop and Flow Rate limits to be re-set using approved replicable methodology (ARM). The ARM re-sets the Pressure Drop and Flow Rate limits based on performance testing that demonstrates compliance. In this instance, as long as the Permittee is implementing the ARM as required by the permit, the permit does not need to be reopened to revise the control equipment parameter limit. The Notice of Compliance that approves the new limit using an ARM will be filed with the permit. Every level of permit action (from administrative amendment to major amendment) can be used to incorporate revised parameter limits that were previously approved via an ARM.
TREA 72, TREA 73, TREA 74, TREA 75, TREA 76, TREA 86 - Step III Tertiary Crusher Scrubbers	PM $\geq$ 95.0 percent control efficiency. PM < 10 micron $\geq$ 94.3 percent control efficiency. PM < 2.5 micron $\geq$ 90.0 percent control efficiency. Pressure Drop $\geq$ 3.9 and $\leq$ 10.0 inches of water (Pressure Drop Range Limit). Water flow rate $\geq$ 22 gallons per minute daily average. [Minn. R. 7007.0800, subp. 2(A) and (B) and 40 CFR 63.9560(b)(1) & Minn. R. 7011.8030]	Periodic inspections; CPMS for water flow rate and pressure drop; O & M plan; corrective actions; recordkeeping; performance tests	Monitoring required by 40 CFR pt. 63, subp. RRRRR is adequate to demonstrate compliance with the requirements of the standard because this standard was promulgated after November 15, 1990, and post-November 15, 1990, NSPS and NESHAPs contain adequate monitoring requirements. The permit allows the Pressure Drop and Flow Rate limits to be re-set using approved replicable methodology (ARM). The ARM re-sets the Pressure Drop and Flow Rate limits based on performance testing that demonstrates compliance. In this instance, as long as the Permittee is implementing the ARM as required by the permit, the permit does not need to be reopened to revise the control equipment parameter limit. The Notice of Compliance that approves the new limit using an ARM will be filed with the permit. Every level of permit action (from administrative amendment to major amendment) can be used to incorporate revised parameter limits that were previously approved via an ARM.

Subject Item*	Requirement (basis)	What is the monitoring?	Why is this monitoring adequate?
TREA 103, TREA 104, TREA 112, TREA 113 – Line 4 & 5 Grate Feed & Discharge Scrubbers	PM $\geq$ 95.0 percent control efficiency. PM < 10 micron $\geq$ 94.3 percent control efficiency. PM < 2.5 micron $\geq$ 90.0 percent control efficiency. Pressure Drop $\geq$ 3.2 and $\leq$ 9.0 inches of water (Pressure Drop Range Limit). Water flow rate $\geq$ 42 gallons per minute daily average. [Minn. R. 7007.0800, subp. 2(A) and (B) and 40 CFR 63.9560(b)(1) & Minn. R. 7011.8030]	Periodic inspections; CPMS for water flow rate and pressure drop; O & M plan; corrective actions; recordkeeping; performance tests	Monitoring required by 40 CFR pt. 63, subp. RRRRR is adequate to demonstrate compliance with the requirements of the standard because this standard was promulgated after November 15, 1990, and post-November 15, 1990, NSPS and NESHAPs contain adequate monitoring requirements. The permit allows the Pressure Drop and Flow Rate limits to be re-set using approved replicable methodology (ARM). The ARM re-sets the Pressure Drop and Flow Rate limits based on performance testing that demonstrates compliance. In this instance, as long as the Permittee is implementing the ARM as required by the permit, the permit does not need to be reopened to revise the control equipment parameter limit. The Notice of Compliance that approves the new limit using an ARM will be filed with the permit. Every level of permit action (from administrative amendment to major amendment) can be used to incorporate revised parameter limits that were previously approved via an ARM.
TREA 107 – Line 4 Cooler Discharge Scrubber	PM $\geq$ 95.0 percent control efficiency. PM < 10 micron $\geq$ 94.3 percent control efficiency. PM < 2.5 micron $\geq$ 90.0 percent control efficiency. Pressure Drop $\geq$ 1.7 and $\leq$ 8.0 inches of water (Pressure Drop Range Limit). Water flow rate $\geq$ 31 gallons per minute daily average. [Minn. R. 7007.0800, subp. 2(A) and (B) and 40 CFR 63.9560(b)(1) & Minn. R. 7011.8030]	Periodic inspections; CPMS for water flow rate and pressure drop; O & M plan; corrective actions; recordkeeping; performance tests	Monitoring required by 40 CFR pt. 63, subp. RRRRR is adequate to demonstrate compliance with the requirements of the standard because this standard was promulgated after November 15, 1990, and post-November 15, 1990, NSPS and NESHAPs contain adequate monitoring requirements. The permit allows the Pressure Drop and Flow Rate limits to be re-set using approved replicable methodology (ARM). The ARM re-sets the Pressure Drop and Flow Rate limits based on performance testing that demonstrates compliance. In this instance, as long as the Permittee is implementing the ARM as required by the permit, the permit does not need to be reopened to revise the control equipment parameter limit. The Notice of Compliance that approves the new limit using an ARM will be filed with the permit. Every level of permit action (from administrative amendment to major amendment) can be used to incorporate revised parameter limits that were previously approved via an ARM.

Subject Item*	Requirement (basis)	What is the monitoring?	Why is this monitoring adequate?
TREA 108 – 41, 46 Conveyor Transfer Scrubber	PM $\geq$ 95.0 percent control efficiency. PM < 10 micron $\geq$ 94.3 percent control efficiency. PM < 2.5 micron $\geq$ 90.0 percent control efficiency. Pressure Drop $\geq$ 9.4 and $\leq$ 14.1 inches of water (Pressure Drop Range Limit). Water flow rate $\geq$ 240 gallons per minute daily average. [Minn. R. 7007.0800, subp. 2(A) and (B) and 40 CFR 63.9560(b)(1) & Minn. R. 7011.8030]	Periodic inspections; CPMS for water flow rate and pressure drop; O & M plan; corrective actions; recordkeeping; performance tests	Monitoring required by 40 CFR pt. 63, subp. RRRRR is adequate to demonstrate compliance with the requirements of the standard because this standard was promulgated after November 15, 1990, and post-November 15, 1990, NSPS and NESHAPs contain adequate monitoring requirements. The permit allows the Pressure Drop and Flow Rate limits to be re-set using approved replicable methodology (ARM). The ARM re-sets the Pressure Drop and Flow Rate limits based on performance testing that demonstrates compliance. In this instance, as long as the Permittee is implementing the ARM as required by the permit, the permit does not need to be reopened to revise the control equipment parameter limit. The Notice of Compliance that approves the new limit using an ARM will be filed with the permit. Every level of permit action (from administrative amendment to major amendment) can be used to incorporate revised parameter limits that were previously approved via an ARM.
TREA 120 – Step III Coarse Crusher Pan Feeder Scrubber	PM $\geq$ 95.0 percent control efficiency. PM < 10 micron $\geq$ 94.3 percent control efficiency. PM < 2.5 micron $\geq$ 90.0 percent control efficiency. Pressure Drop $\geq$ 11.2 and $\leq$ 14.0 inches of water (Pressure Drop Range Limit). Water flow rate $\geq$ 144 gallons per minute daily average. [Minn. R. 7007.0800, subp. 2(A) and (B) and 40 CFR 63.9560(b)(1) & Minn. R. 7011.8030]	Periodic inspections; CPMS for water flow rate and pressure drop; O & M plan; corrective actions; recordkeeping; performance tests	Monitoring required by 40 CFR pt. 63, subp. RRRRR is adequate to demonstrate compliance with the requirements of the standard because this standard was promulgated after November 15, 1990, and post-November 15, 1990, NSPS and NESHAPs contain adequate monitoring requirements. The permit allows the Pressure Drop and Flow Rate limits to be re-set using approved replicable methodology (ARM). The ARM re-sets the Pressure Drop and Flow Rate limits based on performance testing that demonstrates compliance. In this instance, as long as the Permittee is implementing the ARM as required by the permit, the permit does not need to be reopened to revise the control equipment parameter limit. The Notice of Compliance that approves the new limit using an ARM will be filed with the permit. Every level of permit action (from administrative amendment to major amendment) can be used to incorporate revised parameter limits that were previously approved via an ARM.

Subject Item*	Requirement (basis)	What is the monitoring?	Why is this monitoring adequate?
TREA 121 – Step III Coarse Crusher Pan Feeder Scrubber	PM $\geq$ 95.0 percent control efficiency. PM < 10 micron $\geq$ 94.3 percent control efficiency. PM < 2.5 micron $\geq$ 90.0 percent control efficiency. Pressure Drop $\geq$ 4.9 and $\leq$ 10.0 inches of water (Pressure Drop Range Limit). Water flow rate $\geq$ 22.0 gallons per minute daily average. [Minn. R. 7007.0800, subp. 2(A) and (B) and 40 CFR 63.9560(b)(1) & Minn. R. 7011.8030]	Periodic inspections; CPMS for water flow rate and pressure drop; O & M plan; corrective actions; recordkeeping; performance tests	Monitoring required by 40 CFR pt. 63, subp. RRRRR is adequate to demonstrate compliance with the requirements of the standard because this standard was promulgated after November 15, 1990, and post-November 15, 1990, NSPS and NESHAPs contain adequate monitoring requirements. The permit allows the Pressure Drop and Flow Rate limits to be re-set using approved replicable methodology (ARM). The ARM re-sets the Pressure Drop and Flow Rate limits based on performance testing that demonstrates compliance. In this instance, as long as the Permittee is implementing the ARM as required by the permit, the permit does not need to be reopened to revise the control equipment parameter limit. The Notice of Compliance that approves the new limit using an ARM will be filed with the permit. Every level of permit action (from administrative amendment to major amendment) can be used to incorporate revised parameter limits that were previously approved via an ARM.
TREA 122 – Step I & II Conveyor Transfer Scrubber	PM $\geq$ 95.0 percent control efficiency. PM < 10 micron $\geq$ 94.3 percent control efficiency. PM < 2.5 micron $\geq$ 90.0 percent control efficiency. Pressure Drop $\geq$ 4.0 and $\leq$ 12.0 inches of water (Pressure Drop Range Limit). Water flow rate $\geq$ 18.3 gallons per minute daily average. [Minn. R. 7007.0800, subp. 2(A) and (B) and 40 CFR 63.9560(b)(1) & Minn. R. 7011.8030]	Periodic inspections; CPMS for water flow rate and pressure drop; O & M plan; corrective actions; recordkeeping; performance tests	Monitoring required by 40 CFR pt. 63, subp. RRRRR is adequate to demonstrate compliance with the requirements of the standard because this standard was promulgated after November 15, 1990, and post-November 15, 1990, NSPS and NESHAPs contain adequate monitoring requirements. The permit allows the Pressure Drop and Flow Rate limits to be re-set using approved replicable methodology (ARM). The ARM re-sets the Pressure Drop and Flow Rate limits based on performance testing that demonstrates compliance. In this instance, as long as the Permittee is implementing the ARM as required by the permit, the permit does not need to be reopened to revise the control equipment parameter limit. The Notice of Compliance that approves the new limit using an ARM will be filed with the permit. Every level of permit action (from administrative amendment to major amendment) can be used to incorporate revised parameter limits that were previously approved via an ARM.

Subject Item*	Requirement (basis)	What is the monitoring?	Why is this monitoring adequate?
TREA 126, TREA 127 – Transfer House and Surge Pile Reclaim Scrubbers	PM $\geq$ 95.0 percent control efficiency. PM < 10 micron $\geq$ 94.3 percent control efficiency. PM < 2.5 micron $\geq$ 90.0 percent control efficiency. Pressure Drop $\geq$ 2.4 and $\leq$ 12.0 inches of water (Pressure Drop Range Limit). Water flow rate $\geq$ 18.4 gallons per minute daily average. [Minn. R. 7007.0800, subp. 2(A) and (B) and 40 CFR 63.9560(b)(1) & Minn. R. 7011.8030]	Periodic inspections; CPMS for water flow rate and pressure drop; O & M plan; corrective actions; recordkeeping; performance tests	Monitoring required by 40 CFR pt. 63, subp. RRRRR is adequate to demonstrate compliance with the requirements of the standard because this standard was promulgated after November 15, 1990, and post-November 15, 1990, NSPS and NESHAPs contain adequate monitoring requirements. The permit allows the Pressure Drop and Flow Rate limits to be re-set using approved replicable methodology (ARM). The ARM re-sets the Pressure Drop and Flow Rate limits based on performance testing that demonstrates compliance. In this instance, as long as the Permittee is implementing the ARM as required by the permit, the permit does not need to be reopened to revise the control equipment parameter limit. The Notice of Compliance that approves the new limit using an ARM will be filed with the permit. Every level of permit action (from administrative amendment to major amendment) can be used to incorporate revised parameter limits that were previously approved via an ARM.
TREA 132 – Line 5 Pellet Cooler Discharge Scrubber	PM $\geq$ 95.0 percent control efficiency. PM < 10 micron $\geq$ 94.3 percent control efficiency. PM < 2.5 micron $\geq$ 90.0 percent control efficiency. Pressure Drop $\geq$ 1.7 and $\leq$ 8.0 inches of water (Pressure Drop Range Limit). Water flow rate $\geq$ 31.0 gallons per minute daily average. [Minn. R. 7007.0800, subp. 2(A) and (B) and 40 CFR 63.9560(b)(1) & Minn. R. 7011.8030]	Periodic inspections; CPMS for water flow rate and pressure drop; O & M plan; corrective actions; recordkeeping; performance tests	Monitoring required by 40 CFR pt. 63, subp. RRRRR is adequate to demonstrate compliance with the requirements of the standard because this standard was promulgated after November 15, 1990, and post-November 15, 1990, NSPS and NESHAPs contain adequate monitoring requirements. The permit allows the Pressure Drop and Flow Rate limits to be re-set using approved replicable methodology (ARM). The ARM re-sets the Pressure Drop and Flow Rate limits based on performance testing that demonstrates compliance. In this instance, as long as the Permittee is implementing the ARM as required by the permit, the permit does not need to be reopened to revise the control equipment parameter limit. The Notice of Compliance that approves the new limit using an ARM will be filed with the permit. Every level of permit action (from administrative amendment to major amendment) can be used to incorporate revised parameter limits that were previously approved via an ARM.

Subject Item*	Requirement (basis)	What is the monitoring?	Why is this monitoring adequate?
TREA 133 – 41, 46 Conveyor Transfer Scrubber	PM $\geq$ 95.0 percent control efficiency. PM < 10 micron $\geq$ 94.3 percent control efficiency. PM < 2.5 micron $\geq$ 90.0 percent control efficiency. Pressure Drop $\geq$ 9.4 and $\leq$ 16.4 inches of water (Pressure Drop Range Limit). Water flow rate $\geq$ 240 gallons per minute daily average. [Minn. R. 7007.0800, subp. 2(A) and (B) and 40 CFR 63.9560(b)(1) & Minn. R. 7011.8030]	Periodic inspections; CPMS for water flow rate and pressure drop; O & M plan; corrective actions; recordkeeping; performance tests	Monitoring required by 40 CFR pt. 63, subp. RRRRR is adequate to demonstrate compliance with the requirements of the standard because this standard was promulgated after November 15, 1990, and post-November 15, 1990, NSPS and NESHAPs contain adequate monitoring requirements. The permit allows the Pressure Drop and Flow Rate limits to be re-set using approved replicable methodology (ARM). The ARM re-sets the Pressure Drop and Flow Rate limits based on performance testing that demonstrates compliance. In this instance, as long as the Permittee is implementing the ARM as required by the permit, the permit does not need to be reopened to revise the control equipment parameter limit. The Notice of Compliance that approves the new limit using an ARM will be filed with the permit. Every level of permit action (from administrative amendment to major amendment) can be used to incorporate revised parameter limits that were previously approved via an ARM.
TREA 134, TREA 138, TREA 139 – Line 6 Conveyor Transfer and Grate Feed & Discharge Scrubbers	PM $\geq$ 95.0 percent control efficiency. PM < 10 micron $\geq$ 94.3 percent control efficiency. PM < 2.5 micron $\geq$ 90.0 percent control efficiency. Pressure Drop $\geq$ 3.0 and $\leq$ 8.0 inches of water (Pressure Drop Range Limit). Water flow rate $\geq$ 33.0 gallons per minute daily average. [Minn. R. 7007.0800, subp. 2(A) and (B) and 40 CFR 63.9560(b)(1) & Minn. R. 7011.8030]	Periodic inspections; CPMS for water flow rate and pressure drop; O & M plan; corrective actions; recordkeeping; performance tests	Monitoring required by 40 CFR pt. 63, subp. RRRRR is adequate to demonstrate compliance with the requirements of the standard because this standard was promulgated after November 15, 1990, and post-November 15, 1990, NSPS and NESHAPs contain adequate monitoring requirements. The permit allows the Pressure Drop and Flow Rate limits to be re-set using approved replicable methodology (ARM). The ARM re-sets the Pressure Drop and Flow Rate limits based on performance testing that demonstrates compliance. In this instance, as long as the Permittee is implementing the ARM as required by the permit, the permit does not need to be reopened to revise the control equipment parameter limit. The Notice of Compliance that approves the new limit using an ARM will be filed with the permit. Every level of permit action (from administrative amendment to major amendment) can be used to incorporate revised parameter limits that were previously approved via an ARM.

Subject Item*	Requirement (basis)	What is the monitoring?	Why is this monitoring adequate?
TREA 143 – Line 6 Waste Gas Scrubber	PM $\geq$ 97.1 percent control efficiency. PM < 10 micron $\geq$ 90.1 percent control efficiency. PM < 2.5 micron $\geq$ 83.5 percent control efficiency. [Minn. R. 7007.0800, subp. 2(A) and (B)] Pressure Drop $\geq$ 7.2 and $\leq$ 12.0 inches of water (Pressure Drop Range Limit). Water flow rate $\geq$ 2899 gallons per minute daily average. [Title I condition: 40 CFR 52.21(j)(BACT) and 40 CFR 63.9560(b)(1) & Minn. R. 7011.8030]	Periodic inspections; CPMS for water flow rate and pressure drop; O & M plan; corrective actions; recordkeeping; performance tests	Monitoring required by 40 CFR pt. 63, subp. RRRRR is adequate to demonstrate compliance with the requirements of the standard because this standard was promulgated after November 15, 1990, and post-November 15, 1990, NSPS and NESHAPs contain adequate monitoring requirements. The permit allows the Pressure Drop and Flow Rate limits to be re-set using approved replicable methodology (ARM). The ARM re-sets the Pressure Drop and Flow Rate limits based on performance testing that demonstrates compliance. In this instance, as long as the Permittee is implementing the ARM as required by the permit, the permit does not need to be reopened to revise the control equipment parameter limit. The Notice of Compliance that approves the new limit using an ARM will be filed with the permit. Every level of permit action (from administrative amendment to major amendment) can be used to incorporate revised parameter limits that were previously approved via an ARM.
TREA 146, TREA 147 – Line 7 Conveyor Transfer and Grate Feed & Discharge Scrubbers	PM $\geq$ 95.0 percent control efficiency. PM < 10 micron $\geq$ 94.3 percent control efficiency. PM < 2.5 micron $\geq$ 90.0 percent control efficiency. Pressure Drop $\geq$ 3.0 and $\leq$ 8.0 inches of water (Pressure Drop Range Limit). Water flow rate $\geq$ 33.0 gallons per minute daily average. [Minn. R. 7007.0800, subp. 2(A) and (B) and 40 CFR 63.9560(b)(1) & Minn. R. 7011.8030]	Periodic inspections; CPMS for water flow rate and pressure drop; O & M plan; corrective actions; recordkeeping; performance tests	Monitoring required by 40 CFR pt. 63, subp. RRRRR is adequate to demonstrate compliance with the requirements of the standard because this standard was promulgated after November 15, 1990, and post-November 15, 1990, NSPS and NESHAPs contain adequate monitoring requirements. The permit allows the Pressure Drop and Flow Rate limits to be re-set using approved replicable methodology (ARM). The ARM re-sets the Pressure Drop and Flow Rate limits based on performance testing that demonstrates compliance. In this instance, as long as the Permittee is implementing the ARM as required by the permit, the permit does not need to be reopened to revise the control equipment parameter limit. The Notice of Compliance that approves the new limit using an ARM will be filed with the permit. Every level of permit action (from administrative amendment to major amendment) can be used to incorporate revised parameter limits that were previously approved via an ARM.

Subject Item*	Requirement (basis)	What is the monitoring?	Why is this monitoring adequate?
TREA 151 – Line 7 Waste Gas Scrubber	PM $\geq$ 97.1 percent control efficiency. PM < 10 micron $\geq$ 90.1 percent control efficiency. PM < 2.5 micron $\geq$ 83.5 percent control efficiency. [Minn. R. 7007.0800, subp. 2(A) and (B)] Pressure Drop $\geq$ 5.7 and $\leq$ 12.0 inches of water (Pressure Drop Range Limit). Water flow rate $\geq$ 2897 gallons per minute daily average. [Title I condition: 40 CFR 52.21(j)(BACT) and 40 CFR 63.9560(b)(1) & Minn. R. 7011.8030]	Periodic inspections; CPMS for water flow rate and pressure drop; O & M plan; corrective actions; recordkeeping; performance tests	Monitoring required by 40 CFR pt. 63, subp. RRRRR is adequate to demonstrate compliance with the requirements of the standard because this standard was promulgated after November 15, 1990, and post-November 15, 1990, NSPS and NESHAPs contain adequate monitoring requirements. The permit allows the Pressure Drop and Flow Rate limits to be re-set using approved replicable methodology (ARM). The ARM re-sets the Pressure Drop and Flow Rate limits based on performance testing that demonstrates compliance. In this instance, as long as the Permittee is implementing the ARM as required by the permit, the permit does not need to be reopened to revise the control equipment parameter limit. The Notice of Compliance that approves the new limit using an ARM will be filed with the permit. Every level of permit action (from administrative amendment to major amendment) can be used to incorporate revised parameter limits that were previously approved via an ARM.
TREA 172, TREA 173 – Line 3 Grate Feed & Discharge Scrubber	PM $\geq$ 95.0 percent control efficiency. PM < 10 micron $\geq$ 94.3 percent control efficiency. PM < 2.5 micron $\geq$ 90.0 percent control efficiency. Pressure Drop $\geq$ 25.2 and $\leq$ 62.0 inches of water (Pressure Drop Range Limit). Water flow rate $\geq$ 7.0 gallons per minute daily average. [Minn. R. 7007.0800, subp. 2(A) and (B) and 40 CFR 63.9560(b)(1) & Minn. R. 7011.8030]	Periodic inspections; CPMS for water flow rate and pressure drop; O & M plan; corrective actions; recordkeeping; performance tests	Monitoring required by 40 CFR pt. 63, subp. RRRRR is adequate to demonstrate compliance with the requirements of the standard because this standard was promulgated after November 15, 1990, and post-November 15, 1990, NSPS and NESHAPs contain adequate monitoring requirements. The permit allows the Pressure Drop and Flow Rate limits to be re-set using approved replicable methodology (ARM). The ARM re-sets the Pressure Drop and Flow Rate limits based on performance testing that demonstrates compliance. In this instance, as long as the Permittee is implementing the ARM as required by the permit, the permit does not need to be reopened to revise the control equipment parameter limit. The Notice of Compliance that approves the new limit using an ARM will be filed with the permit. Every level of permit action (from administrative amendment to major amendment) can be used to incorporate revised parameter limits that were previously approved via an ARM.

Subject Item*	Requirement (basis)	What is the monitoring?	Why is this monitoring adequate?
TREA 174 – Line 3 Cooler Discharge Scrubber	PM $\geq$ 95.0 percent control efficiency. PM < 10 micron $\geq$ 94.3 percent control efficiency. PM < 2.5 micron $\geq$ 90.0 percent control efficiency. Pressure Drop $\geq$ 86.8 and $\leq$ 180 inches of water (Pressure Drop Range Limit). Water flow rate $\geq$ 28 gallons per minute daily average. [Minn. R. 7007.0800, subp. 2(A) and (B) and 40 CFR 63.9560(b)(1) & Minn. R. 7011.8030]	Periodic inspections; CPMS for water flow rate and pressure drop; O & M plan; corrective actions; recordkeeping; performance tests	Monitoring required by 40 CFR pt. 63, subp. RRRRR is adequate to demonstrate compliance with the requirements of the standard because this standard was promulgated after November 15, 1990, and post-November 15, 1990, NSPS and NESHAPs contain adequate monitoring requirements. The permit allows the Pressure Drop and Flow Rate limits to be re-set using approved replicable methodology (ARM). The ARM re-sets the Pressure Drop and Flow Rate limits based on performance testing that demonstrates compliance. In this instance, as long as the Permittee is implementing the ARM as required by the permit, the permit does not need to be reopened to revise the control equipment parameter limit. The Notice of Compliance that approves the new limit using an ARM will be filed with the permit. Every level of permit action (from administrative amendment to major amendment) can be used to incorporate revised parameter limits that were previously approved via an ARM.
TREA 175, TREA 176, TREA 177 – Various Line 3 Scrubbers	PM $\geq$ 95.0 percent control efficiency. PM < 10 micron $\geq$ 94.3 percent control efficiency. PM < 2.5 micron $\geq$ 90.0 percent control efficiency. Pressure Drop $\geq$ 25.2 and $\leq$ 67.0 inches of water (Pressure Drop Range Limit). Water flow rate $\geq$ 7.0 gallons per minute daily average. [Minn. R. 7007.0800, subp. 2(A) and (B) and 40 CFR 63.9560(b)(1) & Minn. R. 7011.8030]	Periodic inspections; CPMS for water flow rate and pressure drop; O & M plan; corrective actions; recordkeeping; performance tests	Monitoring required by 40 CFR pt. 63, subp. RRRRR is adequate to demonstrate compliance with the requirements of the standard because this standard was promulgated after November 15, 1990, and post-November 15, 1990, NSPS and NESHAPs contain adequate monitoring requirements. The permit allows the Pressure Drop and Flow Rate limits to be re-set using approved replicable methodology (ARM). The ARM re-sets the Pressure Drop and Flow Rate limits based on performance testing that demonstrates compliance. In this instance, as long as the Permittee is implementing the ARM as required by the permit, the permit does not need to be reopened to revise the control equipment parameter limit. The Notice of Compliance that approves the new limit using an ARM will be filed with the permit. Every level of permit action (from administrative amendment to major amendment) can be used to incorporate revised parameter limits that were previously approved via an ARM.

Subject Item*	Requirement (basis)	What is the monitoring?	Why is this monitoring adequate?
TREA 178, TEA 179 – Lines 4 & 5 Fines Conveyor Scrubber	PM $\geq$ 95.0 percent control efficiency. PM < 10 micron $\geq$ 94.3 percent control efficiency. PM < 2.5 micron $\geq$ 90.0 percent control efficiency. Pressure Drop $\geq$ 86.6 and $\leq$ 180 inches of water (Pressure Drop Range Limit). Water flow rate $\geq$ 280 gallons per minute daily average. [Minn. R. 7007.0800, subp. 2(A) and (B) and 40 CFR 63.9560(b)(1) & Minn. R. 7011.8030]	Periodic inspections; CPMS for water flow rate and pressure drop; O & M plan; corrective actions; recordkeeping; performance tests	Monitoring required by 40 CFR pt. 63, subp. RRRRR is adequate to demonstrate compliance with the requirements of the standard because this standard was promulgated after November 15, 1990, and post-November 15, 1990, NSPS and NESHAPs contain adequate monitoring requirements. The permit allows the Pressure Drop and Flow Rate limits to be re-set using approved replicable methodology (ARM). The ARM re-sets the Pressure Drop and Flow Rate limits based on performance testing that demonstrates compliance. In this instance, as long as the Permittee is implementing the ARM as required by the permit, the permit does not need to be reopened to revise the control equipment parameter limit. The Notice of Compliance that approves the new limit using an ARM will be filed with the permit. Every level of permit action (from administrative amendment to major amendment) can be used to incorporate revised parameter limits that were previously approved via an ARM.
TREA 185 – Line 7 Conveyor Transfer Scrubber	PM $\geq$ 95.0 percent control efficiency. PM < 10 micron $\geq$ 94.3 percent control efficiency. PM < 2.5 micron $\geq$ 90.0 percent control efficiency. Pressure Drop $\geq$ 5.6 and $\leq$ 9.5 inches of water (Pressure Drop Range Limit). Water flow rate $\geq$ 130 gallons per minute daily average. [Minn. R. 7007.0800, subp. 2(A) and (B) and 40 CFR 63.9560(b)(1) & Minn. R. 7011.8030]	Periodic inspections; CPMS for water flow rate and pressure drop; O & M plan; corrective actions; recordkeeping; performance tests	Monitoring required by 40 CFR pt. 63, subp. RRRRR is adequate to demonstrate compliance with the requirements of the standard because this standard was promulgated after November 15, 1990, and post-November 15, 1990, NSPS and NESHAPs contain adequate monitoring requirements. The permit allows the Pressure Drop and Flow Rate limits to be re-set using approved replicable methodology (ARM). The ARM re-sets the Pressure Drop and Flow Rate limits based on performance testing that demonstrates compliance. In this instance, as long as the Permittee is implementing the ARM as required by the permit, the permit does not need to be reopened to revise the control equipment parameter limit. The Notice of Compliance that approves the new limit using an ARM will be filed with the permit. Every level of permit action (from administrative amendment to major amendment) can be used to incorporate revised parameter limits that were previously approved via an ARM.

Subject Item*	Requirement (basis)	What is the monitoring?	Why is this monitoring adequate?
TREA 187 – Step III Storage Bin 15, 16 Scrubber	PM $\geq$ 95.0 percent control efficiency. PM < 10 micron $\geq$ 94.3 percent control efficiency. PM < 2.5 micron $\geq$ 90.0 percent control efficiency. Pressure Drop $\geq$ 5.3 and $\leq$ 8.0 inches of water (Pressure Drop Range Limit). Water flow rate $\geq$ 58 gallons per minute daily average. [Minn. R. 7007.0800, subp. 2(A) and (B) and 40 CFR 63.9560(b)(1) & Minn. R. 7011.8030]	Periodic inspections; CPMS for water flow rate and pressure drop; O & M plan; corrective actions; recordkeeping; performance tests	Monitoring required by 40 CFR pt. 63, subp. RRRRR is adequate to demonstrate compliance with the requirements of the standard because this standard was promulgated after November 15, 1990, and post-November 15, 1990, NSPS and NESHAPs contain adequate monitoring requirements. The permit allows the Pressure Drop and Flow Rate limits to be re-set using approved replicable methodology (ARM). The ARM re-sets the Pressure Drop and Flow Rate limits based on performance testing that demonstrates compliance. In this instance, as long as the Permittee is implementing the ARM as required by the permit, the permit does not need to be reopened to revise the control equipment parameter limit. The Notice of Compliance that approves the new limit using an ARM will be filed with the permit. Every level of permit action (from administrative amendment to major amendment) can be used to incorporate revised parameter limits that were previously approved via an ARM.
TREA 188 – Storage Bins Lines 1,2 Scrubber	PM $\geq$ 95.0 percent control efficiency. PM < 10 micron $\geq$ 94.3 percent control efficiency. PM < 2.5 micron $\geq$ 90.0 percent control efficiency. Pressure Drop $\geq$ 5.0 and $\leq$ 7.0 inches of water (Pressure Drop Range Limit). Water flow rate $\geq$ 50 gallons per minute daily average. [Minn. R. 7007.0800, subp. 2(A) and (B) and 40 CFR 63.9560(b)(1) & Minn. R. 7011.8030]	Periodic inspections; CPMS for water flow rate and pressure drop; O & M plan; corrective actions; recordkeeping; performance tests	Monitoring required by 40 CFR pt. 63, subp. RRRRR is adequate to demonstrate compliance with the requirements of the standard because this standard was promulgated after November 15, 1990, and post-November 15, 1990, NSPS and NESHAPs contain adequate monitoring requirements. The permit allows the Pressure Drop and Flow Rate limits to be re-set using approved replicable methodology (ARM). The ARM re-sets the Pressure Drop and Flow Rate limits based on performance testing that demonstrates compliance. In this instance, as long as the Permittee is implementing the ARM as required by the permit, the permit does not need to be reopened to revise the control equipment parameter limit. The Notice of Compliance that approves the new limit using an ARM will be filed with the permit. Every level of permit action (from administrative amendment to major amendment) can be used to incorporate revised parameter limits that were previously approved via an ARM.

Subject Item*	Requirement (basis)	What is the monitoring?	Why is this monitoring adequate?
TREA 189, TREA 190, TREA 191, TREA 192, TREA 193 – Storage Bines 3-12 Scrubbers	PM $\geq$ 95.0 percent control efficiency. PM < 10 micron $\geq$ 94.3 percent control efficiency. PM < 2.5 micron $\geq$ 90.0 percent control efficiency. Pressure Drop $\geq$ 4.1 and $\leq$ 8.0 inches of water (Pressure Drop Range Limit). Water flow rate $\geq$ 42 gallons per minute daily average. [Minn. R. 7007.0800, subp. 2(A) and (B) and 40 CFR 63.9560(b)(1) & Minn. R. 7011.8030]	Periodic inspections; CPMS for water flow rate and pressure drop; O & M plan; corrective actions; recordkeeping; performance tests	Monitoring required by 40 CFR pt. 63, subp. RRRRR is adequate to demonstrate compliance with the requirements of the standard because this standard was promulgated after November 15, 1990, and post-November 15, 1990, NSPS and NESHAPs contain adequate monitoring requirements. The permit allows the Pressure Drop and Flow Rate limits to be re-set using approved replicable methodology (ARM). The ARM re-sets the Pressure Drop and Flow Rate limits based on performance testing that demonstrates compliance. In this instance, as long as the Permittee is implementing the ARM as required by the permit, the permit does not need to be reopened to revise the control equipment parameter limit. The Notice of Compliance that approves the new limit using an ARM will be filed with the permit. Every level of permit action (from administrative amendment to major amendment) can be used to incorporate revised parameter limits that were previously approved via an ARM.
TREA 224 – Line 3 Waste Gas Scrubber	PM $\geq$ 97.1 percent control efficiency. PM < 10 micron $\geq$ 87.7 percent control efficiency. PM < 2.5 micron $\geq$ 79.1 percent control efficiency. [Minn. R. 7007.0800, subp. 2(A) and (B)] Pressure Drop $\geq$ 6.3 and $\leq$ 12.0 inches of water (Pressure Drop Range Limit). Water flow rate $\geq$ 2568 gallons per minute daily average. [Title I condition: 40 CFR 52.21(j)(BACT) and 40 CFR 63.9560(b)(1) & Minn. R. 7011.8030]	Periodic inspections; CPMS for water flow rate and pressure drop; O & M plan; corrective actions; recordkeeping; performance tests	Monitoring required by 40 CFR pt. 63, subp. RRRRR is adequate to demonstrate compliance with the requirements of the standard because this standard was promulgated after November 15, 1990, and post-November 15, 1990, NSPS and NESHAPs contain adequate monitoring requirements. The permit allows the Pressure Drop and Flow Rate limits to be re-set using approved replicable methodology (ARM). The ARM re-sets the Pressure Drop and Flow Rate limits based on performance testing that demonstrates compliance. In this instance, as long as the Permittee is implementing the ARM as required by the permit, the permit does not need to be reopened to revise the control equipment parameter limit. The Notice of Compliance that approves the new limit using an ARM will be filed with the permit. Every level of permit action (from administrative amendment to major amendment) can be used to incorporate revised parameter limits that were previously approved via an ARM.

Subject Item*	Requirement (basis)	What is the monitoring?	Why is this monitoring adequate?
TREA 225 – Line 6 Steam Collection Venturi Scrubber	PM $\geq$ 95.0 percent control efficiency. PM < 10 micron $\geq$ 94.3 percent control efficiency. PM < 2.5 micron $\geq$ 90.0 percent control efficiency. Pressure Drop $\geq$ 0.5 and $\leq$ 8.0 inches of water (Pressure Drop Range Limit). Water flow rate $\geq$ 150 gallons per minute daily average. [Minn. R. 7007.0800, subp. 2(A) and (B)]	Periodic inspections; CPMS for water flow rate and pressure drop; O & M plan; corrective actions; recordkeeping; performance tests	Monitoring required by 40 CFR pt. 63, subp. RRRRR is adequate to demonstrate compliance with the requirements of the standard because this standard was promulgated after November 15, 1990, and post-November 15, 1990, NSPS and NESHAPs contain adequate monitoring requirements. The permit allows the Pressure Drop and Flow Rate limits to be re-set using approved replicable methodology (ARM). The ARM re-sets the Pressure Drop and Flow Rate limits based on performance testing that demonstrates compliance. In this instance, as long as the Permittee is implementing the ARM as required by the permit, the permit does not need to be reopened to revise the control equipment parameter limit. The Notice of Compliance that approves the new limit using an ARM will be filed with the permit. Every level of permit action (from administrative amendment to major amendment) can be used to incorporate revised parameter limits that were previously approved via an ARM.
TREA 89 – S3 Bentonite Storage Baghouse	Particulate Matter $\geq$ 99.4 percent control efficiency. PM < 10 micron $\geq$ 99.3 percent control efficiency. PM < 2.5 micron $\geq$ 99.0 percent control efficiency. Pressure Drop $\geq$ 0.5 and $\leq$ 6.0 inches of water (Pressure Drop Range Limit). [Minn. R. 7007.0800, subp. 2(A) and (B)]	Daily and periodic inspections, pressure drop, operation and maintenance, corrective actions, and recordkeeping	Monitoring based on the Minnesota Performance Standard for Control Equipment is adequate to have a reasonable assurance of compliance. The permit allows the Pressure Drop limits to be re-set using approved replicable methodology (ARM). The ARM re-sets the Pressure Drop limits based on performance testing that demonstrates compliance. In this instance, as long as the Permittee is implementing the ARM as required by the permit, the permit does not need to be reopened to revise the control equipment parameter limit. The Notice of Compliance that approves the new limit using an ARM will be filed with the permit. Every level of permit action (from administrative amendment to major amendment) can be used to incorporate revised parameter limits that were previously approved via an ARM.

Subject Item*	Requirement (basis)	What is the monitoring?	Why is this monitoring adequate?
TREA 90, TREA 214 – Limestone Dump pocket baghouses	Particulate Matter $\geq$ 99.4 percent control efficiency. PM < 10 micron $\geq$ 99.3 percent control efficiency. PM < 2.5 micron $\geq$ 99.0 percent control efficiency. Pressure Drop $\geq$ 0.5 and $\leq$ 8.0 inches of water (Pressure Drop Range Limit). [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2)]	Daily and periodic inspections, pressure drop, operation and maintenance, corrective actions, and recordkeeping	Monitoring based on the Minnesota Performance Standard for Control Equipment is adequate to have a reasonable assurance of compliance. The permit allows the Pressure Drop limits to be re-set using approved replicable methodology (ARM). The ARM re-sets the Pressure Drop limits based on performance testing that demonstrates compliance. In this instance, as long as the Permittee is implementing the ARM as required by the permit, the permit does not need to be reopened to revise the control equipment parameter limit. The Notice of Compliance that approves the new limit using an ARM will be filed with the permit. Every level of permit action (from administrative amendment to major amendment) can be used to incorporate revised parameter limits that were previously approved via an ARM.
TREA 94, TREA 97, TREA 98, TREA 100, TREA 101, TREA 102, TREA 110, TREA 111, TREA 130, TREA 135, TREA 136, TREA 137, TREA 145, TREA 211 – Bentonite Baghouses	Particulate Matter $\geq$ 99.4 percent control efficiency. PM < 10 micron $\geq$ 99.3 percent control efficiency. PM < 2.5 micron $\geq$ 99.0 percent control efficiency. Pressure Drop $\geq$ 0.5 and $\leq$ 8.0 inches of water (Pressure Drop Range Limit). [Minn. R. 7007.0800, subp. 2(A) and (B)]	Daily and periodic inspections, pressure drop, operation and maintenance, corrective actions, and recordkeeping	Monitoring based on the Minnesota Performance Standard for Control Equipment is adequate to have a reasonable assurance of compliance. The permit allows the Pressure Drop limits to be re-set using approved replicable methodology (ARM). The ARM re-sets the Pressure Drop limits based on performance testing that demonstrates compliance. In this instance, as long as the Permittee is implementing the ARM as required by the permit, the permit does not need to be reopened to revise the control equipment parameter limit. The Notice of Compliance that approves the new limit using an ARM will be filed with the permit. Every level of permit action (from administrative amendment to major amendment) can be used to incorporate revised parameter limits that were previously approved via an ARM.

Subject Item*	Requirement (basis)	What is the monitoring?	Why is this monitoring adequate?
TREA 99 – Agglomerators I & II Bentonite Unloading Baghouse	Particulate Matter $\geq$ 99.4 percent control efficiency. PM < 10 micron $\geq$ 99.3 percent control efficiency. PM < 2.5 micron $\geq$ 99.0 percent control efficiency. Pressure Drop $\geq$ 2.0 and $\leq$ 8.0 inches of water (Pressure Drop Range Limit). [Minn. R. 7007.0800, subp. 2(A) and (B)]	Daily and periodic inspections, pressure drop, operation and maintenance, corrective actions, and recordkeeping	Monitoring based on the Minnesota Performance Standard for Control Equipment is adequate to have a reasonable assurance of compliance. The permit allows the Pressure Drop limits to be re-set using approved replicable methodology (ARM). The ARM re-sets the Pressure Drop limits based on performance testing that demonstrates compliance. In this instance, as long as the Permittee is implementing the ARM as required by the permit, the permit does not need to be reopened to revise the control equipment parameter limit. The Notice of Compliance that approves the new limit using an ARM will be filed with the permit. Every level of permit action (from administrative amendment to major amendment) can be used to incorporate revised parameter limits that were previously approved via an ARM.
TREA 115, TREA 116, TREA 117 – Coarse Crusher Fabric Filters	Particulate Matter $\geq$ 99.4 percent control efficiency. PM < 10 micron $\geq$ 99.3 percent control efficiency. PM < 2.5 micron $\geq$ 99.0 percent control efficiency. Pressure Drop $\geq$ 3.0 and $\leq$ 12.0 inches of water (Pressure Drop Range Limit). [Minn. R. 7007.0800, subp. 2(A) and (B) and 40 CFR 63.9560(b)(1) & Minn. R. 7011.8030]	Periodic inspections; bag leak detector, pressure drop monitoring; O & M plan; corrective actions; recordkeeping; performance tests	Monitoring required by 40 CFR pt. 63, subp. RRRRR is adequate to demonstrate compliance with the requirements of the standard because this standard was promulgated after November 15, 1990, and post-November 15, 1990, NSPS and NESHAPs contain adequate monitoring requirements. The permit allows the Pressure Drop limits to be re-set using approved replicable methodology (ARM). The ARM re-sets the Pressure Drop limits based on performance testing that demonstrates compliance. In this instance, as long as the Permittee is implementing the ARM as required by the permit, the permit does not need to be reopened to revise the control equipment parameter limit. The Notice of Compliance that approves the new limit using an ARM will be filed with the permit. Every level of permit action (from administrative amendment to major amendment) can be used to incorporate revised parameter limits that were previously approved via an ARM.

Subject Item*	Requirement (basis)	What is the monitoring?	Why is this monitoring adequate?
TREA 115, TREA 116, TREA 117, TREA 194, TREA 195, TREA 196, TREA 197, TREA 198, TREA 199, TREA 200, TREA 201, TREA 202, TREA 203, TREA 204, TREA 205, TREA 206, TREA 207, TREA 208, TREA 209, TREA 210, TREA 212, TREA 213, TREA 215, TREA 216, TREA 217, TREA 218, TREA 221, TREA 222, TREA 223, TREA 225, TREA 226, TREA 227, TREA 228, TREA 229, TREA 230, TREA 231, TREA 232 – Miscellaneous RRRRR fabric filters (Donaldson)	Particulate Matter $\geq$ 99.4 percent control efficiency. PM < 10 micron $\geq$ 99.3 percent control efficiency. PM < 2.5 micron $\geq$ 99.0 percent control efficiency. Pressure Drop $\geq$ 0.5 and $\leq$ 8.0 inches of water (Pressure Drop Range Limit). [Minn. R. 7007.0800, subp. 2(A) and (B) and 40 CFR 63.9560(b)(1) & Minn. R. 7011.8030]	Periodic inspections; bag leak detector, pressure drop monitoring; O & M plan; corrective actions; recordkeeping; performance tests	Monitoring required by 40 CFR pt. 63, subp. RRRRR is adequate to demonstrate compliance with the requirements of the standard because this standard was promulgated after November 15, 1990, and post-November 15, 1990, NSPS and NESHAPs contain adequate monitoring requirements. The permit allows the Pressure Drop limits to be re-set using approved replicable methodology (ARM). The ARM re-sets the Pressure Drop limits based on performance testing that demonstrates compliance. In this instance, as long as the Permittee is implementing the ARM as required by the permit, the permit does not need to be reopened to revise the control equipment parameter limit. The Notice of Compliance that approves the new limit using an ARM will be filed with the permit. Every level of permit action (from administrative amendment to major amendment) can be used to incorporate revised parameter limits that were previously approved via an ARM.
TREA 171 – Hill Wood Products Baghouse	Particulate Matter $\geq$ 90.0 percent control efficiency. PM < 10 micron $\geq$ 90.0 percent control efficiency. PM < 2.5 micron $\geq$ 90.0 percent control efficiency. Pressure Drop $\geq$ 2.0 and $\leq$ 8.0 inches of water (Pressure Drop Range Limit). [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2)]	Daily and periodic inspections, pressure drop, operation and maintenance, corrective actions, and recordkeeping	Monitoring based on the Minnesota Performance Standard for Control Equipment is adequate to have a reasonable assurance of compliance.

Subject Item*	Requirement (basis)	What is the monitoring?	Why is this monitoring adequate?
TREA 219, TREA 220 – Conveyor 005 transfer fabric filters	Particulate Matter $\geq$ 99.4 percent control efficiency. PM < 10 micron $\geq$ 99.3 percent control efficiency. PM < 2.5 micron $\geq$ 99.0 percent control efficiency. Pressure Drop $\geq$ 0.5 and $\leq$ 8.0 inches of water (Pressure Drop Range Limit). [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2)]	Periodic inspections; bag leak detector, pressure drop monitoring; O & M plan; corrective actions; recordkeeping; performance tests	Monitoring required by 40 CFR pt. 63, subp. RRRRR is adequate to demonstrate compliance with the requirements of the standard because this standard was promulgated after November 15, 1990, and post-November 15, 1990, NSPS and NESHAPs contain adequate monitoring requirements. The permit allows the Pressure Drop limits to be re-set using approved replicable methodology (ARM). The ARM re-sets the Pressure Drop limits based on performance testing that demonstrates compliance. In this instance, as long as the Permittee is implementing the ARM as required by the permit, the permit does not need to be reopened to revise the control equipment parameter limit. The Notice of Compliance that approves the new limit using an ARM will be filed with the permit. Every level of permit action (from administrative amendment to major amendment) can be used to incorporate revised parameter limits that were previously approved via an ARM.
TREA 217, TREA 233-265, TREA 269 – Replacement RRRRR Fabric Filters (Cartridge Filters)	Particulate Matter $\geq$ 99.4 percent control efficiency. PM < 10 micron $\geq$ 99.3 percent control efficiency. PM < 2.5 micron $\geq$ 99.0 percent control efficiency. Pressure Drop $\geq$ 0.5 and $\leq$ 8.0 inches of water (Pressure Drop Range Limit). [Minn. R. 7007.0800, subp. 2(A) and (B) and 40 CFR 63.9560(b)(1) & Minn. R. 7011.8030]	Periodic inspections; bag leak detector, pressure drop monitoring; O & M plan; corrective actions; recordkeeping; performance tests	Monitoring required by 40 CFR pt. 63, subp. RRRRR is adequate to demonstrate compliance with the requirements of the standard because this standard was promulgated after November 15, 1990, and post-November 15, 1990, NSPS and NESHAPs contain adequate monitoring requirements. The permit allows the Pressure Drop limits to be re-set using approved replicable methodology (ARM). The ARM re-sets the Pressure Drop limits based on performance testing that demonstrates compliance. In this instance, as long as the Permittee is implementing the ARM as required by the permit, the permit does not need to be reopened to revise the control equipment parameter limit. The Notice of Compliance that approves the new limit using an ARM will be filed with the permit. Every level of permit action (from administrative amendment to major amendment) can be used to incorporate revised parameter limits that were previously approved via an ARM.

*Location of the requirement in the permit (e.g., EQUI 1, STRU 2, etc.).

Control equipment inspection frequency

The permit includes quarterly external inspection and semiannual internal inspection requirements for all controls (fabric filters and wet scrubbers). U.S. Steel Minntac will perform quarterly external inspections on

its control equipment to inspect things like fan vibration, ductwork leaks, and dust accumulation around baghouses. Additionally, U.S. Steel Minntac continuously monitors operating parameters such as pressure drop and water flow rate, along with operation of bag leak detectors on fabric filters subject to the Taconite MACT. In recent deviation reports submitted to the MPCA, U.S. Steel Minntac has noted that issues that have lead to a control deviating from its parametric operating limits have been external component failures, such as fan belts. The quarterly external inspections, continuous parametric monitoring, and the history of compliant stack testing, are reasons the MPCA has imposed semiannual internal inspection requirements on controls, as opposed to standard MPCA permit language of quarterly.

3.12 Performance Test Results Summary

The following tables summarize performance testing results at Minntac since 2015.

Table 21. Kiln test results

Unit	Date	Total Particulate Matter (TPM) ¹ lb/hr	Filterable PM gr/dscf	Applicable MACT Limit (gr/dscf)	% of limit
EQUI 3 – Line 6 Kiln	4/20/2016	17	0.0049	0.01	49%
	6/19/2018	22	0.0067	0.01	67%
	4/7/2020	16	0.0044	0.01	44%
	5/4/2023	9.3	0.0028	0.01	28%
	5/6/2025	25	0.0076	0.01	76%
EQUI 146 – Line 3 Kiln	5/6/2015	17	0.0093	0.01	93%
	5/31/2017	18	0.01	0.01	100%
	4/25/2019	17	0.0098	0.01	98%
	5/10/2022	**	0.0093	0.01	93%
	5/8/2024	25	0.014	0.01	140% ²
EQUI 179 – Line 7 Kiln	5/3/2016	24	0.0076	0.01	76%
	6/28/2017	18	0.0056	0.01	56%
	6/21/2018	24	0.0075	0.01	75%
	8/11/2020	23	0.0071	0.01	71%
	5/3/2023	9.5	0.0028	0.01	28%
	5/7/2025	35	0.01	0.01	100%
EQUI 279 – Line 4 Kiln	5/8/2015	48	0.0129	0.01	129% ²
	6/13/2017	16	0.0047	0.01	47%
	4/30/2019	26	0.0071	0.01	71%
	4/12/2022	33	0.0088	0.01	88%
	10/4/2023	26	0.008	0.01	80%
EQUI 280 – Line 5 Kiln	9/16/2015	39	0.011	0.01	110% ²
	6/15/2017	20	0.006	0.01	60%
	4/23/2019	16	0.0046	0.01	46%
	4/8/2022	**	0.0052	0.01	52%
	10/5/2023	16.7	0.005	0.01	50%
	5/7/2024	16	0.0045	0.01	45%

¹Sum of filterable and organic condensable particulate matter.

²The MPCA considers results $\leq 149\%$ of the gr/dscf limit (0.0149 gr/dscf) to be compliant because there is evidence in the *Federal Register* (68 FR 61874) that limits written in the Taconite MACT to only two digits (e.g. 0.01) are to be considered as having one significant figure.

**Not reported

Table 22. Pellet Cooler test results

Unit	Date	Filterable PM gr/dscf	TPM ¹ (lb/hr)	Applicable limit 7011.0715, subp. 1(A) limit (lb/hr)	% of limit
EQUI 41 – Line 5 Pellet Cooler	4/15/2020	0.04	37	46	80%
	4/13/2021	0.014	12.3	45.7	27%
	4/13/2022	0.016	15	46	33%
	6/27/2024	0.025	21	46	46%
	6/3/2025	0.04	28	46	61%
	4/26/2026	0.045	36	48	75%
EQUI 267 – Line 6 Pellet Cooler	4/8/2020	0.039	33	46	72%
	4/23/2021	0.06	42.8	46.1	93%
	4/6/2022	0.017	12	46	26%
	5/5/2023	0.028	20	48	42%
	6/24/2024	0.047	28	46	61%
	5/1/2025	0.043	30	46	65%
EQUI 268 – Line 7 Pellet Cooler	8/12/2020	0.019	17	46	37%
	4/23/2021	0.058	37.7	45.7	82%
	4/5/2022	0.016	14	46	30%
	5/3/2023	0.018	15	48	31%
	6/21/2024	0.019	18	46	39%
	5/2/2025	0.023	22	46	48%
EQUI 350 – Line 3 Pellet Cooler	4/14/2020	0.028	22	41	54%
	4/15/2021	0.034	27.8	42.3	66%
	5/11/2022	0.033	26	42	62%
	4/27/2023	0.032	25	44	57%
	6/28/2024	0.041	31	42	74%
	6/5/2025	0.031	24	43	56%
EQUI 370 – Line 4 Pellet Cooler	4/14/2020	0.0096	7.9	46	17%
	4/13/2021	0.046	38.4	45.7	84%
	5/12/2022	0.016	14	46	30%
	4/25/2023	0.013	12	48	25%
	6/26/2024	0.022	13	46	28%
	6/4/2025	0.041	31	46	67%

¹Sum of filterable and organic condensable particulate matter.

Minntac has tested pellet cooler stacks every year since 2015 and has had no instances of non-compliance with the applicable Minn. R. 7011.0715, subp. 1(A) PM limit. The MPCA is implementing a reduced testing

frequency in the permit to align pellet cooler testing with the kiln testing schedule for the Taconite MACT which is every 30 months.

The table below lists test results for units (besides kilns) subject to the Taconite MACT. The table is ordered by testing groups included in this permit action (13700005-101), when applicable. The full MACT testing schedule is included in section 3.9 of this TSD.

Table 23. Taconite MACT test results

New Testing group	EQUI(s)	Date	Result (gr/dscf)	Result (lb/hr)	Limit (gr/dscf)	% of limit
COMG 42 – Step I and II Coarse Crushers - Scrubbers	EQUI 47	8/25/2015	0.00023	0.11	0.08	0%
COMG 43 – Step I and II Conveyors Group 1 - Scrubbers	EQUI 206, EQUI 207	9/25/2017	0.00034	0.068	0.08	0%
	EQUI 206, EQUI 207	4/22/2025	0.0028	0.7	0.08	4%
	EQUI 208, EQUI 374	9/14/2022	0.0007	0.14	0.08	1%
	EQUI 208, EQUI 374	4/23/2025	0.002	0.56	0.08	3%
COMG 47 – Step I and II Conveyors Group 3 - Cartridge Filters	EQUI 330, EQUI 383-384	9/24/2021	0.00051	0.13	0.08	1%
	EQUI 331-333, EQUI 385	4/10/2023	0.00033	0.00056	0.08	0%
	EQUI 52	4/13/2023	0.00031	0.00042	0.08	0%
	EQUI 53	10/12/2021	0.0015	0.062	0.08	2%
COMG 48 – Secondary Crushers L1-L5 - Cartridge Filters	EQUI 327	9/5/2018	0.0044	0.0045	0.08	6%
	EQUI 327	10/10/2019	0.004	0.7	0.08	5%
	EQUI 327	9/12/2022	0.004	0.59	0.08	5%
	EQUI 327	4/11/2023	0.00034	0.00051	0.08	0%
	EQUI 328	7/28/2015	0.003	0.46	0.08	4%
	EQUI 328	9/27/2023	0.00036	0.083	0.08	0%
	EQUI 329	9/20/2017	0.0019	0.28	0.08	2%
	EQUI 329	9/21/2021	0.0021	0.34	0.08	3%
	EQUI 329	12/14/2023	0.00036	0.07	0.08	0%
	EQUI 382	8/15/2016	0.0041	0.63	0.08	5%
	EQUI 382	9/11/2020	0.0046	0.51	0.08	6%
	EQUI 382	12/14/2023	0.00036	0.094	0.08	0%
COMG 49 – Secondary Crushers L6-L10 - Scrubbers	EQUI 339	9/26/2023	0.0034	0.43	0.08	4%
COMG 51 – Tertiary Crushers L1-L6 - Cartridge Filters	EQUI 335	8/10/2016	0.000027	0.0059	0.08	0%
	EQUI 335	9/13/2022	0.00031	368	0.08	0%
	EQUI 336	9/6/2018	0.00024	0.00032	0.08	0%
	EQUI 336	4/12/2024	0.00036	0.084	0.08	0%
	EQUI 337	9/9/2020	0.00012	0.043	0.08	0%
	EQUI 338	7/27/2015	0.0057	1.2	0.08	7%
	EQUI 338	9/20/2021	0.00068	0.18	0.08	1%
	EQUI 388	9/19/2017	0.00056	0.13	0.08	1%
	EQUI 388	9/27/2023	0.0005	0.13	0.08	1%

	EQUI 389	10/9/2019	0.0016	0.34	0.08	2%
COMG 52 – Tertiary Crushers L7-L12 - Cartridge Filters	EQUI 56	9/10/2020	0.000055	0.019	0.08	0%
	EQUI 58	9/14/2020	0.000025	0.02	0.08	0%
COMG 53 – Tertiary Crushers L13-L16 - Cartridge Filters	EQUI 63	10/13/2015	0.019	3.4	0.08	24%
COMG 54 – Step I and II Conveyors Group 3 - Cartridge Filters	EQUI 313-314, EQUI 393-394	12/12/2023	0.00035	0.028	0.08	0%
	EQUI 326, EQUI 381	10/8/2019	0.00083	0.068	0.08	1%
	EQUI 326, EQUI 381	4/12/2023	0.00031	0.0004	0.08	0%
COMG 55 – Step I and II Storage Bins - Scrubbers	EQUI 19, EQUI 216- 221	9/26/2017	0.00023	0.045	0.08	0%
	EQUI 19, EQUI 216- 221	9/22/2020	0.00028	0.06	0.08	0%
	EQUI 19, EQUI 216- 221	9/28/2023	0.00064	0.08	0.08	1%
	EQUI 20-22, EQUI 222-225	9/10/2018	0.00026	0.00031	0.08	0%
	EQUI 20-22, EQUI 222-225	9/16/2021	0.00029	0.08	0.08	0%
	EQUI 20-22, EQUI 222-225	4/8/2024	0.00092	0.34	0.08	1%
	EQUI 209-215	8/19/2016	0	0	0.08	0%
	EQUI 209-215	10/7/2019	0.00019	0.037	0.08	0%
	EQUI 209-215	9/7/2022	0.0007	0.12	0.08	1%
	EQUI 216-221	8/28/2015	0.00044	0.086	0.08	1%
	EQUI 23-24 & EQUI 227-230	9/7/2018	0.00009	0.00013	0.08	0%
COMG 56 – Step III Pan feeders - Scrubbers	EQUI 375	4/21/2025	0.002	0.22	0.08	3%
COMG 58 – Step III Secondary Crushers L11-15 - Scrubbers	EQUI 286	9/21/2017	0.0027	0.49	0.08	3%
	EQUI 9	9/1/2021	0.0011	0.18	0.08	1%
COMG 60 – Step III Secondary Crushers L18-23 - Scrubbers	EQUI 301	9/6/2022	0.0029	0.45	0.08	4%
COMG 64 – Step III Conveyors Group 1 - Scrubbers	EQUI 11	5/10/2017	0.017	1.4	0.08	21%
	EQUI 12, EQUI 290	9/28/2023	0.0024	0.19	0.08	3%
	EQUI 288, EQUI 289	5/14/2017	0.0023	0.28	0.08	3%
	EQUI 8, EQUI 284	4/9/2024	0.00061	0.11	0.08	1%
COMG 66 – Step III Storage Bins Group 1 - Fabric Filters	EQUI 136, EQUI 164, EQUI 242-246	9/11/2018	0.00077	0.00084	0.08	1%
	EQUI 136, EQUI 164, EQUI 242-246	9/23/2022	0.00051	0.14	0.08	1%
	EQUI 140-142, EQUI 251-254	9/30/2021	0.00072	0.18	0.08	1%
	EQUI 149, EQUI 353	5/24/2018	0.0007	0.064	0.08	1%

COMG 69 – Step I/II Pellet Handling Conveyors - Scrubbers	EQUI 149, EQUI 353	6/19/2025	0.0017	0.18	0.08	2%
	EQUI 150, EQUI 354	4/27/2020	0.0043	0.23	0.08	5%
	EQUI 315, EQUI 372	5/24/2017	0.0002	0.14	0.08	0%
	EQUI 351	5/23/2017	0.0008	0.047	0.08	1%
	EQUI 351	4/17/2023	0.0013	0.1	0.08	2%
COMG 70 – Step I/II Grate Feeds - Scrubbers	EQUI 159	5/24/2017	0.0016	0.078	0.08	8%
	EQUI 347	4/21/2016	0.0061	0.07	0.08	55%
	EQUI 347	6/1/2017	0.044	33	0.08	1%
	EQUI 347	4/14/2021	0.00061	0.08	0.08	1%
	EQUI 347	5/8/2024	0.00045	0.051	0.08	2%
COMG 71 – Step I/II Cooler Discharge - Scrubbers	EQUI 147	5/16/2022	0.00083	0.29	0.08	1%
COMG 72 – Step III Grate Feed and Conveyors - Scrubbers	EQUI 104	8/12/2020	0.0014	0.12	0.08	2%
	EQUI 119 & 120	5/6/2025	0.0017	0.39	0.08	2%
	EQUI 122 & 123	5/25/2017	0.0026	0.62	0.08	3%
N/A	EQUI 48 – Step III Coarse Crusher	7/29/2015	0.00074	0.24	0.08	1%
N/A		7/21/2020	0.0001	0.1	0.08	0%
N/A	EQUI 97 – L6 Grate Discharge	5/9/2024	0.0083	0.5	0.08	10%
N/A	EQUI 348 – L3 Grate Discharge	5/1/2019	0.0038	0.45	0.08	5%
N/A	EQUI 275, EQUI 705 – Limestone Receiving	10/20/2015	0.0007	0.32	0.022 ¹	3%
N/A	EQUI 275, EQUI 705 – Limestone Receiving	10/2/2017	0.00059	0.23	0.022 ¹	3%
N/A	EQUI 275, EQUI 705 – Limestone Receiving	9/5/2019	0.00059	n/a	0.022 ¹	3%
N/A	EQUI 275, EQUI 705 – Limestone Receiving	9/27/2021	0.00037	0.12	0.022 ¹	2%
N/A	EQUI 275, EQUI 705 – Limestone Receiving	10/10/2023	0.000062	0.015	0.022 ¹	0%

¹The 0.022 gr/dscf limit applies to new limestone handling equipment under 40 CFR pt. 60, subp. OOO, not the Taconite MACT. Recurring testing is not required under NSPS OOO and therefore is not included in this permit.

The table below lists performance testing results for testing against BACT limits at the five kilns.

Table 24. Kiln BACT limit test results

EQUI	Test Date	Pollutant	Result (lb/hr)	Limit (lb/hr)	% limit
EQUI 146 – Line 3 Kiln	11/3/2018	Fluorides	0.23	1.04	22%
		Carbon Monoxide (CO)	19.7	68.8	29%
		Volatile Organic Compounds (VOC)	2.76	51.6	5%
	9/19/2023	Fluorides	0.23	1.04	22%
		CO	15.8	68.8	23%
		VOC	2.45	51.6	5%
EQUI 279 – Line 4 Kiln	10/17/2018	Fluorides	0.33	1.62	20%
		CO	26.3	98.6	27%
		VOC	4.49	74.0	6%
	9/21/2023	Fluorides	0.62	1.62	38%

EQUI 280 – Line 5 Kiln	10/17/2018	CO	30.6	98.6	31%
		VOC	3.44	74.0	5%
		Fluorides	0.23	1.62	14%
	9/20/2023	CO	32.2	98.6	33%
		VOC	5.35	74.0	7%
		Fluorides	0.49	1.62	30%
EQUI 3 – Line 6 Kiln	4/9/2019	CO	29.2	98.6	30%
		VOC	3.66	74.0	5%
		Fluorides	0.13	1.62	8%
	4/25/2024	CO	15.5	74.0	21%
		VOC	2.33	54.3	4%
		Fluorides	0.31	1.62	16%
EQUI 179 – Line 7 Kiln	4/9/2019	CO	14.6	74.0	20%
		VOC	3.37	54.3	6%
		Fluorides	0.16	1.62	10%
	4/26/2024	CO	16.0	74.0	22%
		VOC	2.30	54.3	4%
		Fluorides	0.35	1.62	22%
		CO	18.4	74.0	25%
		VOC	2.73	54.3	5%

3.13 Waste Gas Scrubber Water Flow Rates

MPCA Staff evaluated water flow rates during recent filterable particulate matter performance tests used to demonstrate compliance with the Taconite MACT limit of 0.01 gr/dscf for indurating furnaces. Test results for Lines 4-7 were generally 20-30% below the limit and water flow rates during the testing were below the 7% buffer allowed in the testing plans approved by MPCA compliance staff.

The most recent May 2024 filterable particulate matter test result for Line 3 (EQUI 146) was 0.014 gr/dscf, which is considered to be 100% of the limit because the limit of 0.01 gr/dscf contains only 1 significant figure and 0.014 rounded to one significant figure is 0.01. During this test, Minntac was operating at an average water flow rate of 2500 gpm, which is within the 7% buffer allowed in the testing plan. However, given the test result of 100% of the limit, and individual runs exceeding the limit, the MPCA does not believe the existing limit of 2400 gpm is adequate to ensure compliance with the 0.01 gr/dscf limit. Therefore, the MPCA has adjusted this limit to be 2500 gpm in this permit.

Minntac conducted testing on Lines 4-5 with the intent to reset water flow rate limits on TREA 37 and TREA 38 as allowed under 40 CFR § 63.9622(f). The revised water flow rate limits were made effective with a January 28, 2024 NOC and have been included in the reissued permit.

3.14 Control Efficiencies

Several emission sources at Minntac are required to use add-on control equipment in order to comply with emission limits and determine PTE calculations. The add-on controls (fabric filters, cartridge filters, and wet scrubbers) use a control efficiency to calculate the expected controlled emission rate. The controlled emission rate meets emission limits and is used for PTE calculations. When properly installed, operated, and maintained within the proper design parameters, the control equipment is expected to meet the used control efficiency and thus meet the calculated controlled emission rate. For a given control efficiency (expressed as a percent), controlled PTE is calculated as:

$$(Uncontrolled\ PTE) \times (100 - Control\ Efficiency) / 100 = (Controlled\ PTE)$$

In order to help ensure continuous compliance, the 1996 Seitz memo Options for Limiting the Potential to Emit of a Stationary Source from EPA states that a control efficiency must be included as a permit condition when a source uses it to establish compliance with an emission limit or with synthetic minor status under

one of the federal regulations, PSD, NAANSR, Part 70, and NESHAPs. Since the add-on controls are used to show compliance with emission limits (most commonly the Taconite MACT or IPER), a control efficiency requirement is needed in these situations. The exception to this is when CEMs are used to show compliance with a limit. A control efficiency is not needed in these cases because the emissions are directly measured.

In many cases it is not technically feasible to measure control efficiency with testing, nor will it yield reliable results. Therefore, periodic monitoring of the add-on controls is used to show compliance instead of testing for the control efficiency. The units at Minntac have periodic monitoring and recordkeeping for the add-on controls which includes an inspection of the operating parameter (water flow rates, pressure drops, etc.), corrective actions if issues are noticed, following the control equipment's O&M plan, and following an inspection and maintenance schedule. Daily inspections to confirm proper operation of the add-on control are effective method to ensure continuous compliance with permit limits.

In summary, the permit contains various emission limits. The facility uses add-on controls with expected control efficiencies to meet these limits and calculate PTE values. Therefore, control efficiency limits are required to be listed in the permit, as applicable. Periodic monitoring is used to show compliance with the control efficiency limits rather than using testing. When properly installed, operated, and maintained, the control equipment is expected to meet the control efficiencies, PTE values, and emission limits in the permit.

3.15 Emission Factor Testing for Condensable Particulate Matter

Emission units at Minntac rely on performance test data for emissions inventory purposes for filterable and condensable particulate matter. In order to have accurate data, Minn. R. 7019.3050, subp. C requires that test data used for emissions inventory purposes needs to be less than 10 years old. Therefore, the permit includes emission factor testing for these units. The emission factor testing will gather data for filterable PM and condensable PM lb/ton of product throughput (crude ore, pellets, bentonite, limestone, etc.). A 5-year frequency was used for emission factor testing due to the size of the facility, to better match required testing elsewhere, and to ensure emissions inventory data is current.

The schedule for testing condensable particulate matter in the permit matches the performance test schedule for the Taconite MACT, which can be referenced in Section 3.9 of this TSD. Testing for filterable PM for MACT compliance and condensable PM at the same time is resource efficient. The only non-MACT processes at Minntac are bentonite and limestone handling units. These emission units largely vent indoors so emission factor testing of these units is not feasible.

3.16 Approved Replicable Methodology (ARMs)

Approved replicable methodology (ARM) language was added to the permit to pre-authorize a change/update to the operating parameter limits (pressure drop, water flow rate, etc.) for control

equipment. ARMs specify a process to update the operating parameter limit without submitting a permit amendment.

ARMs are site specific for each control and list a specific process for re-setting the operating parameter limit. The general process is as follows:

1. Facility schedules a performance test and notifies the regulatory party of the plan.
2. Facility completes the performance test while monitoring the emission rate and the operating parameters.
3. If the emission rate is within the desired range, the operating parameter can be re-set to match the operating rates during the performance test. The operating rates are re-set as described in the permit.
4. Facility submits results of the performance test, operating parameters, and proposed re-set operating parameter limit to regulated party.
5. The regulated party reviews the results of the test and sends the facility a Notice of Compliance Letter. The new operating parameter limit/range will become effective upon receipt of the Notice of Compliance letter. The operating parameter will be updated in the permit when the permit is next amended.

ARM language is voluntary. The facility is not required to have ARM language in the permit or to use the ARM language listed in the permit. If the facility elects to not use the ARM language, they must update operating parameters by applying for the appropriate permit amendment. If through testing the MPCA determines that additional limits or re-setting operating parameters is required, the MPCA can follow the current process of using a Notice of Compliance and creating a permit reopening. The MPCA and facility cannot deviate from the ARM in the permit without amending the permit first.

There are two different sets of ARM language listed in this permit: the standard MPCA language and taconite MACT version. The standard MPCA language is the default language used in air permits. The process is to complete a performance test and revise the operating parameters to match those used in the performance test. However, the taconite MACT lists a specific method for setting operating parameters in permits, as described in 40 CFR 63.9622. The process to update the operating parameters, as described in 40 CFR 63.9622(f)(1)-(3), is to notify the regulatory party, conduct a performance test, and revise the operating parameter based on the test results. Since this is basically the same as the MPCA's process, a site-specific determination was made to adjust the MPCA ARM language to match the Taconite MACT. By meeting the MACT's process the facility will be meeting the MPCA's ARM process.

3.17 Fugitive dust control plan

U.S. Steel has a fugitive dust control plan for Minntac and it listed as a permit Appendix. The purpose of the fugitive dust control plan is to comply with 40 CFR Part 63, Subparts A and RRRRR for the fugitive sources at the facility and help ensure continuous compliance with Minnesota Standards for visible air contaminants under Minn. R. 7011.0105 and preventing particulate matter from becoming airborne under Minn. R. 7011.0150. The plan identifies fugitive sources at the facility and details control measures and practices that are used to minimize fugitive emissions. The fugitive dust control was reviewed and updated as a part of this permit action.

Another aspect of the fugitive dust control plan is to identify and track the control measures used at the unpaved haul roads. The MPCA documented emission factors and control efficiencies for unpaved haul roads at taconite facilities in a memo from 1998. The memo describes how if a taconite facility meets certain operational and monitoring practices, it is allowed to claim control efficiencies in the PTE calculations for the haul roads. Based on the practices laid out in the memo and the practices described in the fugitive dust control plan, the U.S. Steel Minntac facility meets the 3A Level Plan. The 3A level plan provides a control efficiency of 80% for 24-hour values and 90% for annual values for the unpaved haul roads at the facility.

3.18 Insignificant activities

US Steel Corp - MinnTac has several operations which are classified as insignificant activities under the MPCA’s permitting rules. These are listed in Appendix A to the permit.

The permit is required to include periodic monitoring for all emissions units, including insignificant activities, per EPA guidance. The insignificant activities at this Facility are only subject to general applicable requirements. Using the criteria outlined earlier in this TSD, the following table documents the justification why no additional periodic monitoring is necessary for the current insignificant activities. See Attachment 1 of this TSD for PTE information for the insignificant activities.

Table 25. Insignificant activities

Insignificant activity	General applicable emission limit	Discussion
Minn. R. 7007.1300, subp. 3(B)(1)	PM, variable depending on airflow Opacity <= 20% with exceptions [Minn. R. 7011.0610]	U.S. Steel operates 75 electric infrared ovens used in its QC laboratory. These ovens are electric and not reasonably expected to generate particulate emissions.
Minn. R. 7007.1300, subp. 3(D)	PM, variable depending on airflow Opacity <= 20% [Minn. R. 7011.0715]	U.S. Steel operates an on-site QC laboratory for product testing. Particulate emissions are expected to be intermittent and minimal.
Minn. R. 7007.1300, subp. 3(E)	PM <= 0.30 grains per dry standard cubic foot of exhaust gas, with exceptions. Opacity <= 20% [Minn. R. 7011.0715]	U.S. Steel operates brazing, soldering, torch-cutting, and welding equipment for maintenance purposes. Particulate emissions are expected to be intermittent and minimal.
Minn. R. 7007.1300, subp. 3(F)	PM <= 0.4 lb/MMBtu, depending on year constructed Opacity <= 20% with exceptions [Minn. R. 7011.0515]	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. For these units, based on the fuels used and EPA published emissions factors, it is highly unlikely that they could violate the applicable requirements. In addition, all of these units are operated and vented inside a building, so testing for PM or opacity is not feasible.
Minn. R. 7007.1300, subp. 3(G)	Requirement to take reasonable measures to prevent PM from becoming airborne. [Minn. R. 7011.0150]	U.S. Steel operates with a fugitive dust control plan. Measures listed for roads (such as watering) will be applied to unpaved entrance roads and parking lots.
Minn. R. 7007.1300, subp. 4	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]	U.S. Steel operates vehicle refueling stations: 5 x 20,000 gallons diesel, 1 x 15,000 gallons diesel, 1 x 12,000 gallons diesel, 1 x 12,000 gallons gasoline. There are no emission limits that apply, only work practice requirements for tanks to have a submerged fill pipe. U.S. Steel operates five cooling towers. Exhaust from cooling towers is primarily water vapor and particulate emissions are expected to be minimal U.S. Steel operates a propane/NG-fired curing oven. Based on the fuels used and EPA published emissions factors, it is highly unlikely it could violate the applicable requirements.

3.19 Permit organization

This permit meets the MPCA Tempo Guidance for ordering and grouping of requirements as well as the use of permit appendices. The permit contains many groups. The table below summarizes the purpose of each group in the permit

Table 26. Purpose of groups

Group ID(s)	Purpose
COMG 37	Limit. Group contains multiple limits from Regional Haze FIP and PSD analysis that are applicable to the 5 rotary kilns as group (not individually).
COMG 38	Limit. Group contains limits to avoid PSD major modification that are applicable to Line 6 and Line 7 kilns as a group (not individually).
COMG 39, COMG 40, COMG 41,	Listing of 40 CFR pt. 63, subp. RRRRR requirements. Minntac has many units that are subject to the Taconite MACT. There are three groups that list the requirements applicable to different groups of affected sources under the MACT. The listing of requirements at groups shorten the permit.
COMGs 42-72, COMG 78	Performance testing groups. COMGs 42-72 are testing groups for existing affected sources as defined by the MACT. Each group contains emission units where the results of one emission unit may be used to demonstrate compliance for all group members, as allowed by the MACT. As discussed in section 3.9, an emission unit may be included in multiple groups due to Minntac's ongoing replacement of wet controls with dry controls. Once all the wet controls in testing group are removed, that group can be removed. For this reason, there will likely be some wet control testing groups that can be removed at the time of the next permit reissuance.
COMG 73, COMG 74, COMG 75, COMG 76, COMG 77	CEMs requirements. Each group contains requirements related to the required operation of CEMs for each of the five rotary kilns. Note that submittal/action requirements related to cylinder gas audits and RATAs are included at the individual CEMs

Federal NESHAP and NSPS limits and submittal/actions are included individually in the permit. For the remaining portions of the rule, a requirement in Section 5 of the permit lists the citations of all applicable parts of the standard along with a reference to the permit appendix where the full text of the standard is included.

3.20 Comments received

To be completed following the review periods below.

Public Notice Period: [start date] – [end date]

EPA Review Period: [start date] – [end date]

4. Permit fee assessment

This permit action is the reissuance of an individual Part 70; therefore, no application fees apply under Minn. R. 7002.0016, subp. 1 to the changes that are covered by the reissuance application. However, the permit action rolls in additional permit applications to which fees do apply. Attachment 6 to this TSD contains the MPCA's assessment of Application and Additional Points used to determine the permit application fee as required by Minn. R. 7002.0019.

This action includes additional points from minor amendments IND20120002, IND20160001, and IND20170001 since these actions required review of 40 CFR pt. 60, subp. LL Standards of Performance for Metallic Mineral Processing Plants. The MPCA added NSPS LL requirements to the permit.

This action includes additional points from minor amendments IND20160002, IND20210001, IND20230002, and IND20240002 since these actions required review of 40 CFR pt. 60, subp. IIII Standards of Performance for

Stationary Compression Ignition Internal Combustion Engines. The MPCA added NSPS IIII requirements to the permit.

This action includes additional points from minor amendments IND20120002, IND20160001, and IND20170001 since these actions required review of 40 CFR pt. 63, subp. RRRRR National Emission Standards for Hazardous Air Pollutants: Taconite Iron Ore Processing. NESHAP RRRRR requirements are already included in the permit; however, the applicability of NESHAP RRRRR for the units in the listed minor amendments is different from what exists in the permit and therefore the MPCA is assessing additional points.

This action includes additional points from minor amendments IND20160002, IND20210001, IND20230002, and IND20240002 since these actions required review of 40 CFR pt. 60 subp. ZZZZ National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. The emission units comply with NESHAP ZZZZ by meeting the requirements of NSPS IIII and no additional ZZZZ requirements were added to the permit. Nonetheless, the MPCA still assesses points for review of the NESHAP ZZZZ standard.

This action includes additional points from minor amendments IND20120002, IND20160001, and IND20170001 for limits taken to remain below a threshold. The projects applied for in all three minor amendment applications required control efficiency limits taken to avoid PSD major modification status. As discussed earlier, taking these limits would normally require a major amendment application under Minnesota rules. Because there were three different sets of limits taken from the three separate projects, the MPCA is assessing points for three separate instances of taking limits to remain below a threshold.

5. Conclusion

Based on the information provided by US Steel Corp - MinnTac the MPCA has reasonable assurance that the proposed operation of the emission facility, as described in the Air Emission Permit No. 13700005-101 and this TSD, will not cause or contribute to a violation of applicable federal regulations and Minnesota Rules.

Staff members on permit team: Derek Nelson (permit engineer)
Jeff Hedman (peer reviewer)
Ross Provow (air compliance)
Lucy Okerstrom (air enforcement)
Marin Morrell (air enforcement)
Dan Dietrich (AQ mining coordinator)
Beckie Olson (permit writing assistant/data coordinator)
Joe Handtmann (data coordinator)
Laurie O'Brien (administrative support)

Tempo Activities: Administrative Amendment (IND20080001), Administrative Amendment (IND20100001), Administrative Amendment (IND20100002), Administrative Amendment (IND20100005), Administrative Amendment (IND20110001), Administrative Amendment (IND20120001), Administrative Amendment (IND20140001), Major Amendment (IND20080004), Major Amendment (IND20120005), Major Amendment (IND20130001), Major Amendment (IND20200001), Major Amendment (IND20210002), Minor Amendment (IND20060001), Minor Amendment (IND20060002), Minor Amendment (IND20080002), Minor Amendment (IND20080003), Minor Amendment (IND20120002), Minor Amendment (IND20160001), Minor Amendment (IND20160002), Minor Amendment (IND20170001), Minor Amendment (IND20180001), Minor Amendment (IND20210001), Minor Amendment (IND20230002), Minor Amendment (IND20230005), Minor Amendment (IND20240002), Notif of Replace of Unit (IND20220001), Notif of Replace of Unit (IND20220002), Notif of Replace of Controls (IND20100010), Notif of Replace of Controls (IND20110007), Notif of Replace of Controls (IND20110008), Part 70 Reissuance (IND20070001)

Attachments: 1. PTE summary and emissions calculation spreadsheets
2. Subject item inventory and facility requirements

3. Cyclone Inherent Process Equipment Determination
4. CAM plans
5. U.S. Steel Minntac Contractor Historical Throughput Data
6. EPA Contractor Guidance Request and Response Letters
7. Points Calculator

Attachment 1 – PTE summary and emissions calculation spreadsheets

1) AQ Facility ID number: 13200005 19) Agency Interest ID number: 2478
2) Facility name: U. S. Steel - MinnTec

You may use and submit this spreadsheet in place of Form 606-09. Follow the instructions for Form 606-09 to complete this spreadsheet. This spreadsheet can be copied into a tab for your emissions spreadsheet and must be submitted on a CD with your application. If you need to provide emissions information for more emissions units, add more sets of columns (3a through 3f) to the right as needed in the Emissions by Source table. If you need to provide information for more pollutants, add rows as needed.

[illegible]

8) ☐ Application is being submitted on a compact disc (CD) or flash drive, and the editable calculation spreadsheet(s) are included on the CD or flash drive.

☐ Application is being submitted on paper, and editable calculation spreadsheet(s) are included on an enclosed CD or flash drive.

1a) AQ Facility ID number:
2) Facility name:

[illegible]

10) Agency Interest ID number: 2478 1a) AQ Facility ID number: 1234567890
11) Facility name: 12. S. Street - 100

Use of Form GH27. Follow the instructions for Form GH27 to complete this spreadsheet. This spreadsheet can be copied into a tab for your emissions spreadsheet and must be submitted on a emissions information for more emissions units, add more sets of columns (3a through 3f) to the right as needed in the Emissions by Source table. If you need to provide information for more You may use and submit this spreadsheet in a CD with your application. If you need to provide pollutants, add rows as needed.

[illegible]

You may use and submit this spreadsheet in place of Form 62-07. Follow the instructions for Form 62-07 to complete this spreadsheet. 1. CD with your application. If you need to provide emissions information for more emissions units, add more sets of columns (3a through 3j pollutants, add rows as needed).

Application being submitted as a compact disc (CD) or flash drive, and the relevant calculation spreadsheet(s) are submitted on the CD or flash drive.	Application being submitted as a compact disc (CD) or flash drive, and the relevant calculation spreadsheet(s) are submitted on the CD or flash drive.	Application being submitted as a compact disc (CD) or flash drive, and the relevant calculation spreadsheet(s) are submitted on the CD or flash drive.	Application being submitted as a compact disc (CD) or flash drive, and the relevant calculation spreadsheet(s) are submitted on the CD or flash drive.	Application being submitted as a compact disc (CD) or flash drive, and the relevant calculation spreadsheet(s) are submitted on the CD or flash drive.

You may use and submit this spreadsheet in place of Form 6062. Follow the instructions for Form 6062 to complete this spreadsheet. This spreadsheet can be used for more than one CD with your application. If you need to provide emissions information for more emissions units, add more sets of columns (3a through 3f) to the right as needed. To add more pollutants, add rows as needed.

[illegible]

You may use and submit this spreadsheet in place of Form GH-07. Follow the instructions for Form GH-07 to complete this spreadsheet. This spreadsheet can be copied into a tab for your entire CD with your application. If you need to provide emissions information for more emissions units, add more sets of columns (3a through 3f) to the right as needed in the Emissions by Source tab.

[illegible]

You may use and submit the spreadsheet in place of Form GH-07. Follow the instructions for Form GH-07 to complete this spreadsheet. This spreadsheet can be copied into a tab for your emissions spreadsheet and a CD with your application. If you need to provide emissions information for more emissions units, add more sets of columns (J through X) to the right as needed in the Emissions by Source table. If you need to provide pollutants, add rows as needed.

a)	Applikation kring kvaliteten i enlighet med (22) i 2:a stycket, och de väsentliga skillnaderna i jämförelse med (22) i 2:a stycket.	b)	Applikation kring kvaliteten i enlighet med (22) i 2:a stycket, och de väsentliga skillnaderna i jämförelse med (22) i 2:a stycket.	c)	Applikation kring kvaliteten i enlighet med (22) i 2:a stycket, och de väsentliga skillnaderna i jämförelse med (22) i 2:a stycket.

You may use and submit this spreadsheet in place of Form 60-07. Follow the instructions for Form 60-07 to complete this spreadsheet. This spreadsheet can be copied into a tab for your emissions spreadsheet and must be submitted on a CD with your application. If you need to provide emissions information for more emissions units, add more sets of columns (3a through 3f) to the right as needed in the Emissions by Source table. If you need to provide information for more

[illegible]

1a) AQ Facility ID number:
2) Facility name:

Instructions for Form GH-27 to complete this spreadsheet. This spreadsheet can be copied into a tab for your emissions spreadsheet and must be submitted on a emissions units, add more sets of columns (A through J) to the right as needed in the Emissions by Source table. If you need to provide information for more

[illegible]

You may use and submit this spreadsheet in place of Form GI-07. Follow the instructions for Form GI-07 to complete this spreadsheet. This spreadsheet can be submitted in place of your emissions spreadsheet and must be submitted as a part of your emissions application. It is required to provide emissions information for all emissions units, and use area of concern (a/c) through 20 in the right column in the Emissions by Source table. If you need to provide information for more units, add more units as needed.

Emissions by Source Table										Emissions by Source Table										Emissions by Source Table										Emissions by Source Table									
Facility Name										Facility Name										Facility Name										Facility Name									
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You may use and submit this spreadsheet in place of Form G8-07. Follow the instructions for Form G8-07 to complete this spreadsheet. 1. CD with your application. If you need to provide emissions information for more emissions units, add more sets of columns (3a through 3j) pollutants, add rows as needed.

Application being submitted as a compact disc (CD) or flash drive, and the relevant calculation spreadsheet(s) are submitted on the CD or flash drive.	Application being submitted as a compact disc (CD) or flash drive, and the relevant calculation spreadsheet(s) are submitted on the CD or flash drive.	Application being submitted as a compact disc (CD) or flash drive, and the relevant calculation spreadsheet(s) are submitted on the CD or flash drive.	Application being submitted as a compact disc (CD) or flash drive, and the relevant calculation spreadsheet(s) are submitted on the CD or flash drive.	Application being submitted as a compact disc (CD) or flash drive, and the relevant calculation spreadsheet(s) are submitted on the CD or flash drive.

Ensembles by Source Table		Ensembles by Source Table		Ensembles by Source Table		Ensembles by Source Table		Ensembles by Source Table	
Ensemble ID	Source Table	Ensemble ID	Source Table	Ensemble ID	Source Table	Ensemble ID	Source Table	Ensemble ID	Source Table
Ensemble 1	Source Table 1	Ensemble 2	Source Table 2	Ensemble 3	Source Table 3	Ensemble 4	Source Table 4	Ensemble 5	Source Table 5
Ensemble 6	Source Table 6	Ensemble 7	Source Table 7	Ensemble 8	Source Table 8	Ensemble 9	Source Table 9	Ensemble 10	Source Table 10

about the C-300 Seal drive	6) Illustration showing identification of a complete Dec (22) or Seal drive, and the relative orientation (represented) of the inside and the C-300 Seal drive	6) Illustration showing identification of a complete Dec (22) or Seal drive, and the relative orientation (represented) of the inside and the C-300 Seal drive
about the C-300 Seal drive	6) Illustration showing identification of a complete Dec (22) or Seal drive, and the relative orientation (represented) of the inside and the C-300 Seal drive	6) Illustration showing identification of a complete Dec (22) or Seal drive, and the relative orientation (represented) of the inside and the C-300 Seal drive

You may use and submit this spreadsheet in place of Form Gt-07. Follow the instructions for Form Gt-07 to complete this spreadsheet. This spreadsheet can be copied into a tab for your work with your application. If you need to provide emissions information for more emissions units, add more sets of columns (Ja through Jf) to the right as needed in the Emissions by Source tab.

[illegible]

You may use and submit the spreadsheet in place of Form G-07. Follow the instructions for Form G-07 to complete this spreadsheet. This spreadsheet can be copied into a tab for your emissions spreadsheet and a CD with your application. If you need to provide emissions information for more emissions units, add more sets of columns (J through X) to the right as needed in the Emissions by Source table. If you need to provide pollutants, add rows as needed.

a)	Applikation kring kvaliteten i enlighet med (22) i 2:a stycket, och de väsentliga skillnaderna i jämförelse med (22) i 2:a stycket.	b)	Applikation kring kvaliteten i enlighet med (22) i 2:a stycket, och de väsentliga skillnaderna i jämförelse med (22) i 2:a stycket.	c)	Applikation kring kvaliteten i enlighet med (22) i 2:a stycket, och de väsentliga skillnaderna i jämförelse med (22) i 2:a stycket.

Application is being submitted on a compact disc (CD) or flash drive, and the vehicle calculation spreadsheet(s) is/are included in the CD or flash drive.

spreadsheet in place of Form GH-07. Follow the instructions for Form GH-07 to complete this spreadsheet. This spreadsheet can be copied into a 3d for your emissions spreadsheet and must be submitted on a CD to provide emissions information for more emissions units, add more sets of columns (A through J) to the right as needed in the Emissions by Source table. If you need to provide information for more units, add more sets of columns (A through J) to the right as needed in the Emissions by Source table. If you need to provide information for more units, add more sets of columns (A through J) to the right as needed in the Emissions by Source table.

Comprehensive Performance Analysis - Q3 2023													Divisional Summary			
Key Performance Indicators			Sales Performance			Operational Efficiency			Customer Satisfaction			Divisional Totals		Overall Average		
Category	Sub-Category	Actual	Target	Variance	Score	Efficiency	Cost	Quality	Score	Feedback	Complaints	Score	Count	Score	Count	
Product Line A	Sub-Category A1	120.5	125.0	-4.5	85	92%	\$1200	98%	88	4.2	15	85	150	85	150	
	Sub-Category A2	115.2	120.0	-4.8	82	90%	\$1150	96%	85	4.1	18	82	140	82	140	
	Sub-Category A3	130.1	135.0	-4.9	87	94%	\$1300	99%	90	4.3	12	87	160	87	160	
	Sub-Category A4	125.8	130.0	-4.2	86	93%	\$1250	97%	89	4.2	14	86	155	86	155	
	Sub-Category A5	118.9	123.0	-4.1	83	91%	\$1180	97%	86	4.1	16	83	145	83	145	
	Sub-Category A6	122.3	127.0	-4.7	84	92%	\$1220	98%	87	4.2	13	84	150	84	150	
	Sub-Category A7	127.6	132.0	-4.4	86	93%	\$1270	99%	89	4.3	11	86	155	86	155	
	Sub-Category A8	119.4	124.0	-4.6	83	91%	\$1190	96%	86	4.1	17	83	148	83	148	
	Sub-Category A9	124.7	129.0	-4.3	85	92%	\$1240	98%	88	4.2	14	85	152	85	152	
	Sub-Category A10	121.0	126.0	-5.0	84	92%	\$1210	97%	87	4.2	15	84	150	84	150	
Product Line B	Sub-Category B1	135.0	140.0	-5.0	88	95%	\$1350	99%	91	4.4	10	88	170	88	170	
	Sub-Category B2	130.2	135.0	-4.8	86	94%	\$1300	98%	89	4.3	12	86	165	86	165	
	Sub-Category B3	140.1	145.0	-4.9	90	96%	\$1400	100%	93	4.5	8	90	180	90	180	
	Sub-Category B4	138.5	143.0	-4.5	89	95%	\$1380	99%	92	4.4	9	89	175	89	175	
	Sub-Category B5	132.7	137.0	-4.3	87	94%	\$1320	98%	90	4.3	11	87	168	87	168	
	Sub-Category B6	136.9	141.0	-4.1	88	95%	\$1360	99%	91	4.4	10	88	172	88	172	
	Sub-Category B7	142.3	147.0	-4.7	91	96%	\$1420	100%	94	4.5	7	91	185	91	185	
	Sub-Category B8	134.6	139.0	-4.4	87	94%	\$1340	98%	90	4.3	12	87	169	87	169	
	Sub-Category B9	139.8	144.0	-4.2	89	95%	\$1390	99%	92	4.4	9	89	174	89	174	
	Sub-Category B10	137.1	142.0	-4.9	88	95%	\$1370	99%	91	4.4	10	88	171	88	171	
Product Line C	Sub-Category C1	145.0	150.0	-5.0	92	98%	\$1450	100%	95	4.6	5	92	190	92	190	
	Sub-Category C2	140.2	145.0	-4.8	90	97%	\$1400	99%	93	4.5	7	90	185	90	185	
	Sub-Category C3	150.1	155.0	-4.9	94	99%	\$1500	100%	97	4.7	3	94	200	94	200	
	Sub-Category C4	148.5	153.0	-4.5	93	98%	\$1480	100%	96	4.6	4	93	195	93	195	
	Sub-Category C5	142.7	147.0	-4.3	91	97%	\$1420	99%	94	4.5	6	91	188	91	188	
	Sub-Category C6	146.9	151.0	-4.1	92	98%	\$1460	100%	95	4.6	5	92	192	92	192	
	Sub-Category C7	152.3	157.0	-4.7	95	99%	\$1520	100%	98	4.7	2	95	205	95	205	
	Sub-Category C8	144.6	149.0	-4.4	91	97%	\$1440	99%	94	4.5	7	91	189	91	189	
	Sub-Category C9	149.8	154.0	-4.2	93	98%	\$1490	100%	96	4.6	4	93	194	93	194	
	Sub-Category C10	147.1	152.0	-4.9	92	98%	\$1470	100%	95	4.6	5	92	191	92	191	
Product Line D	Sub-Category D1	155.0	160.0	-5.0	96	100%	\$1550	100%	99	4.8	2	96	210	96	210	
	Sub-Category D2	150.2	155.0	-4.8	94	99%	\$1500	99%	97	4.7	3	94	205	94	205	
	Sub-Category D3	160.1	165.0	-4.9	98	100%	\$1600	100%	100	4.9	1	98	220	98	220	
	Sub-Category D4	158.5	163.0	-4.5	97	99%	\$1580	100%	99	4.8	2	97	215	97	215	
	Sub-Category D5	152.7	157.0	-4.3	95	99%	\$1520	99%	98	4.7	3	95	208	95	208	
	Sub-Category D6	156.9	161.0	-4.1	96	100%	\$1560	100%	99	4.8	2	96	212	96	212	
	Sub-Category D7	162.3	167.0	-4.7	99	100%	\$1620	100%	100	4.9	1	99	225	99	225	
	Sub-Category D8	154.6	159.0	-4.4	95	99%	\$1540	99%	98	4.7	3	95	209	95	209	
	Sub-Category D9	159.8	164.0	-4.2	97	99%	\$1590	100%	99	4.8	2	97	214	97	214	
	Sub-Category D10	157.1	162.0	-4.9	96	99%	\$1570	99%	98	4.8	2	96	211	96	211	
Product Line E	Sub-Category E1	165.0	170.0	-5.0	98	100%	\$1650	100%	100	4.9	1	98	230	98	230	
	Sub-Category E2	160.2	165.0	-4.8	96	99%	\$1600	99%	99	4.8	2	96	225	96	225	
	Sub-Category E3	170.1	175.0	-4.9	100	100%	\$1700	100%	100	5.0	0	100	240	100	240	
	Sub-Category E4	168.5	173.0	-4.5	99	99%	\$1680	100%	99	4.9	1	99	235	99	235	
	Sub-Category E5	162.7	167.0	-4.3	97	99%	\$1620	99%	99	4.8	2	97	228	97	228	
	Sub-Category E6	166.9	171.0	-4.1	98	100%	\$1660	100%	99	4.9	1	98	232	98	232	
	Sub-Category E7	172.3	177.0	-4.7	101	100%	\$1720	100%	100	5.0	0	101	245	101	245	
	Sub-Category E8	164.6	169.0	-4.4	97	99%	\$1640	99%	99	4.8	2	97	229	97	229	
	Sub-Category E9	169.8	174.0	-4.2	99	99%	\$1690	100%	99	4.9	1	99	234	99	234	
	Sub-Category E10	167.1	172.0	-4.9	98	99%	\$1670	99%	99	4.9	1	98	231	98	231	
Product Line F	Sub-Category F1	175.0	180.0	-5.0	100	100%	\$1750	100%	100	5.0	0	100	250	100	250	
	Sub-Category F2	170.2	175.0	-4.8	98	99%	\$1700	99%	99	4.9	1	98	245	98	245	
	Sub-Category F3	180.1	185.0	-4.9	102	100%	\$1800	100%	100	5.0	0	102	260	102	260	
	Sub-Category F4	178.5	183.0	-4.5	101	99%	\$1780	100%	99	4.9	1	101	255	101	255	
	Sub-Category F5	172.7	177.0	-4.3	99	99%	\$1720	99%	99	4.8	2	99	248	99	248	
	Sub-Category F6	176.9	181.0	-4.1	100	100%	\$1760	100%	99	4.9	1	100	252	100	252	
	Sub-Category F7	182.3	187.0	-4.7	103	100%	\$1820	100%	100	5.0	0	103	265	103	265	
	Sub-Category F8	174.6	179.0	-4.4	99	99%	\$1740	99%	99	4.8	2	99	249	99	249	
	Sub-Category F9	179.8	184.0	-4.2	101	99%	\$1790	100%	99	4.9	1	101	254	101	254	
	Sub-Category F10	177.1	182.0	-4.9	100	99%	\$1770	99%	99	4.9	1	100	251	100	251	
Product Line G	Sub-Category G1	185.0	190.0	-5.0	102	100%	\$1850	100%	100	5.0	0	102	270	102	270	
	Sub-Category G2	180.2	185.0	-4.8	100	99%	\$1800	99%	99	4.9	1	100	265	100	265	
	Sub-Category G3	190.1	195.0	-4.9	104	100%	\$1900	100%	100	5.0	0	104	280	104	280	
	Sub-Category G4	188.5	193.0	-4.5	103	99%	\$1880	100%	99	4.9	1	103	275	103	275	
	Sub-Category G5	182.7	187.0	-4.3	101	99%	\$1820	99%	99	4.8	2	101	268	101	268	
	Sub-Category G6	186.9	191.0	-4.1	102	100%	\$1860	100%	99	4.9	1	102	272	102	272	
	Sub-Category G7	192.3	197.0	-4.7	105	100%	\$1920	100%	100	5.0	0	105	285	105	285	
	Sub-Category G8	184.6	189.0	-4.4	101	99%	\$1840	99%	99	4.8	2	101	271	101	271	
	Sub-Category G9	189.8	194.0	-4.2	103	99%	\$1890	100%	99	4.9	1	103	276	103	276	
	Sub-Category G10	187.1	192.0	-4.9	102	99%	\$1870	99%	99	4.9	1	102	273	102	273	
Product Line H	Sub-Category H1	195.0	200.0	-5.0	104	100%	\$1950	100%	100	5.0	0	104	290	104	290	
	Sub-Category H2	190.2	195.0	-4.8	102	99%	\$1900	99%	99	4.9	1	102	285	102	285	
	Sub-Category H3	200.1	205.0	-4.9	106	100%	\$2000	100%	100	5.0	0	106	300	106	300	
	Sub-Category H4	198.5	203.0	-4.5	105	99%	\$1980	100%	99	4.9	1	105	295	105	295	
	Sub-Category H5	192.7	197.0	-4.3	103	99%	\$1920	99%	99	4.8	2	103	288	103	288	
	Sub-Category H6	196.9	201.0	-4.1	104	100%	\$1960	100%	99	4.9	1	104	292	104	292	
	Sub-Category H7	202.3	207.0	-4.7	107	100%	\$2020	100%	100	5.0	0	107	305	107	305	
	Sub-Category H8	194.6	199.0	-4.4	103	99%	\$1940	99%	99	4.8	2	103	291	103	291	
	Sub-Category H9	199.8	204.0	-4.2	105	99%	\$1990	100%	99	4.9	1	105	296	105	296	
	Sub-Category H10	197.1	202.0	-4.9	104	99%	\$1970	99%	99	4.9	1	104	293	104	293	
Product Line I	Sub-Category I1	205.0	210.0	-5.0	106	100%	\$2050	100%	100	5.0	0	106	310	106	310	
	Sub-Category I2	200.2	205.0	-4.8	104	99%	\$2000	99%	99	4.9	1	104	305	104	305	
	Sub-Category I3	210.1	215.0	-4.9	108	100%	\$2100	100%	100	5.0	0	108	320	108	320	
	Sub-Category I4	208.5	213.0	-4.5	107	99%	\$2080	100%	99	4.9	1	107	315	107	315	
	Sub-Category I5	202.7	207.0	-4.3	105	99%	\$2020	99%	99	4.8	2	105	308	105	308	
	Sub-Category I6	206.9	211.0	-4.1	106	100%	\$2060	100%	99	4.9	1	106	312	106	312	
	Sub-Category I7	212.3	217.0	-4.7	109	100%	\$2120	100%	100	5.0	0	109	325	109	325	
	Sub-Category I8	204.6	209.0	-4.4	105	99%	\$2040	99%	99	4.8	2	105	311	105	311	
	Sub-Category I9	209.8	214.0	-4.2	107	99%	\$2090	100%	99	4.9	1	107	316	107	316	
	Sub-Category I10	207.1	212.0	-4.9	106	99%	\$2070	99%	99	4.9	1	106	313	106	313	
Product Line J	Sub-Category J1	215.0	220.0	-5.0	108	100%	\$2150	100%	100	5.0	0	108	330	108	330	
	Sub-Category J2	210.2	215.0	-4.8	106	99%	\$2100	99%	99	4.9	1	106	325	106	325	
	Sub-Category J3	220.1	225.0	-4.9	110	100%	\$2200	100%	100	5.0	0	110	340	110	340	
	Sub-Category J4	218.5	223.0	-4.5	109	99%	\$2180	100%	99	4.9	1	109	335	109	335	
	Sub-Category J5	212.7	217.0	-4.3	107	99%	\$2120	99%	99	4.8	2	107	328	107	328	
	Sub-Category J6	216.9	221.0	-4.1	108	100%	\$2160	100%	99	4.9	1	108	332	108		

may be submitted on a CD with your application. If you need to provide emissions information for more emissions units, add more sets of columns (2a through 2f) to the right as needed.

Evaluation by Source Table														
Key Table 1: Source			Table			Key Table 2: Source			Table					
Table	Field	Value	Table	Field	Value	Table	Field	Value	Table	Field	Value	Field		
Table 1	id	1	Table 2	id	1	Table 3	id	1	Table 4	id	1	Table 5	id	1
	name	John Doe		name	John Doe		name	John Doe		name	John Doe		name	John Doe
	age	30		age	30		age	30		age	30		age	30
	gender	Male		gender	Male		gender	Male		gender	Male		gender	Male
	email	john.doe@example.com		email	john.doe@example.com		email	john.doe@example.com		email	john.doe@example.com		email	john.doe@example.com
	phone	123-456-7890		phone	123-456-7890		phone	123-456-7890		phone	123-456-7890		phone	123-456-7890
	address	123 Main St, New York, NY 10001		address	123 Main St, New York, NY 10001		address	123 Main St, New York, NY 10001		address	123 Main St, New York, NY 10001		address	123 Main St, New York, NY 10001
	created_at	2023-01-01 10:00:00		created_at	2023-01-01 10:00:00		created_at	2023-01-01 10:00:00		created_at	2023-01-01 10:00:00		created_at	2023-01-01 10:00:00
	updated_at	2023-01-01 10:00:00		updated_at	2023-01-01 10:00:00		updated_at	2023-01-01 10:00:00		updated_at	2023-01-01 10:00:00		updated_at	2023-01-01 10:00:00
	deleted_at			deleted_at			deleted_at			deleted_at			deleted_at	
Table 6	id	2	Table 7	id	2	Table 8	id	2	Table 9	id	2	Table 10	id	2
	name	Jane Smith		name	Jane Smith		name	Jane Smith		name	Jane Smith		name	Jane Smith
	age	25		age	25		age	25		age	25		age	25
	gender	Female		gender	Female		gender	Female		gender	Female		gender	Female
	email	jane.smith@example.com		email	jane.smith@example.com		email	jane.smith@example.com		email	jane.smith@example.com		email	jane.smith@example.com
	phone	987-654-3210		phone	987-654-3210		phone	987-654-3210		phone	987-654-3210		phone	987-654-3210
	address	456 Elm St, Los Angeles, CA 90001		address	456 Elm St, Los Angeles, CA 90001		address	456 Elm St, Los Angeles, CA 90001		address	456 Elm St, Los Angeles, CA 90001		address	456 Elm St, Los Angeles, CA 90001
	created_at	2023-02-15 14:30:00		created_at	2023-02-15 14:30:00		created_at	2023-02-15 14:30:00		created_at	2023-02-15 14:30:00		created_at	2023-02-15 14:30:00
	updated_at	2023-02-15 14:30:00		updated_at	2023-02-15 14:30:00		updated_at	2023-02-15 14:30:00		updated_at	2023-02-15 14:30:00		updated_at	2023-02-15 14:30:00
	deleted_at			deleted_at			deleted_at			deleted_at			deleted_at	
Table 11	id	3	Table 12	id	3	Table 13	id	3	Table 14	id	3	Table 15	id	3
	name	Bob Johnson		name	Bob Johnson		name	Bob Johnson		name	Bob Johnson		name	Bob Johnson
	age	45		age	45		age	45		age	45		age	45
	gender	Male		gender	Male		gender	Male		gender	Male		gender	Male
	email	bob.johnson@example.com		email	bob.johnson@example.com		email	bob.johnson@example.com		email	bob.johnson@example.com		email	bob.johnson@example.com
	phone	555-111-2222		phone	555-111-2222		phone	555-111-2222		phone	555-111-2222		phone	555-111-2222
	address	789 Oak St, Chicago, IL 60601		address	789 Oak St, Chicago, IL 60601		address	789 Oak St, Chicago, IL 60601		address	789 Oak St, Chicago, IL 60601		address	789 Oak St, Chicago, IL 60601
	created_at	2023-03-10 09:15:00		created_at	2023-03-10 09:15:00		created_at	2023-03-10 09:15:00		created_at	2023-03-10 09:15:00		created_at	2023-03-10 09:15:00
	updated_at	2023-03-10 09:15:00		updated_at	2023-03-10 09:15:00		updated_at	2023-03-10 09:15:00		updated_at	2023-03-10 09:15:00		updated_at	2023-03-10 09:15:00
	deleted_at			deleted_at			deleted_at			deleted_at			deleted_at	
Table 16	id	4	Table 17	id	4	Table 18	id	4	Table 19	id	4	Table 20	id	4
	name	Alice Brown		name	Alice Brown		name	Alice Brown		name	Alice Brown		name	Alice Brown
	age	28		age	28		age	28		age	28		age	28
	gender	Female		gender	Female		gender	Female		gender	Female		gender	Female
	email	alice.brown@example.com		email	alice.brown@example.com		email	alice.brown@example.com		email	alice.brown@example.com		email	alice.brown@example.com
	phone	333-444-5555		phone	333-444-5555		phone	333-444-5555		phone	333-444-5555		phone	333-444-5555
	address	101 Pine St, San Francisco, CA 94101		address	101 Pine St, San Francisco, CA 94101		address	101 Pine St, San Francisco, CA 94101		address	101 Pine St, San Francisco, CA 94101		address	101 Pine St, San Francisco, CA 94101
	created_at	2023-04-05 16:45:00		created_at	2023-04-05 16:45:00		created_at	2023-04-05 16:45:00		created_at	2023-04-05 16:45:00		created_at	2023-04-05 16:45:00
	updated_at	2023-04-05 16:45:00		updated_at	2023-04-05 16:45:00		updated_at	2023-04-05 16:45:00		updated_at	2023-04-05 16:45:00		updated_at	2023-04-05 16:45:00
	deleted_at			deleted_at			deleted_at			deleted_at			deleted_at	
Table 21	id	5	Table 22	id	5	Table 23	id	5	Table 24	id	5	Table 25	id	5
	name	Charlie Davis		name	Charlie Davis		name	Charlie Davis		name	Charlie Davis		name	Charlie Davis
	age	35		age	35		age	35		age	35		age	35
	gender	Male		gender	Male		gender	Male		gender	Male		gender	Male
	email	charlie.davis@example.com		email	charlie.davis@example.com		email	charlie.davis@example.com		email	charlie.davis@example.com		email	charlie.davis@example.com
	phone	222-333-4444		phone	222-333-4444		phone	222-333-4444		phone	222-333-4444		phone	222-333-4444
	address	202 Cedar St, Portland, OR 97201		address	202 Cedar St, Portland, OR 97201		address	202 Cedar St, Portland, OR 97201		address	202 Cedar St, Portland, OR 97201		address	202 Cedar St, Portland, OR 97201
	created_at	2023-05-01 11:20:00		created_at	2023-05-01 11:20:00		created_at	2023-05-01 11:20:00		created_at	2023-05-01 11:20:00		created_at	2023-05-01 11:20:00
	updated_at	2023-05-01 11:20:00		updated_at	2023-05-01 11:20:00		updated_at	2023-05-01 11:20:00		updated_at	2023-05-01 11:20:00		updated_at	2023-05-01 11:20:00
	deleted_at			deleted_at			deleted_at			deleted_at			deleted_at	
Table 26	id	6	Table 27	id	6	Table 28	id	6	Table 29	id	6	Table 30	id	6
	name	Diana Prince		name	Diana Prince		name	Diana Prince		name	Diana Prince		name	Diana Prince
	age	22		age	22		age	22		age	22		age	22
	gender	Female		gender	Female		gender	Female		gender	Female		gender	Female
	email	diana.prince@example.com		email	diana.prince@example.com		email	diana.prince@example.com		email	diana.prince@example.com		email	diana.prince@example.com
	phone	111-222-3333		phone	111-222-3333		phone	111-222-3333		phone	111-222-3333		phone	111-222-3333
	address	303 Maple St, Seattle, WA 98101		address	303 Maple St, Seattle, WA 98101		address	303 Maple St, Seattle, WA 98101		address	303 Maple St, Seattle, WA 98101		address	303 Maple St, Seattle, WA 98101
	created_at	2023-06-03 08:45:00		created_at	2023-06-03 08:45:00		created_at	2023-06-03 08:45:00		created_at	2023-06-03 08:45:00		created_at	2023-06-03 08:45:00
	updated_at	2023-06-03 08:45:00		updated_at	2023-06-03 08:45:00		updated_at	2023-06-03 08:45:00		updated_at	2023-06-03 08:45:00		updated_at	2023-06-03 08:45:00
	deleted_at			deleted_at			deleted_at			deleted_at			deleted_at	
Table 31	id	7	Table 32	id	7	Table 33	id	7	Table 34	id	7	Table 35	id	7
	name	Ethan Hunt		name	Ethan Hunt		name	Ethan Hunt		name	Ethan Hunt		name	Ethan Hunt
	age	38		age	38		age	38		age	38		age	38
	gender	Male		gender	Male		gender	Male		gender	Male		gender	Male
	email	ethan.hunt@example.com		email	ethan.hunt@example.com		email	ethan.hunt@example.com		email	ethan.hunt@example.com		email	ethan.hunt@example.com
	phone	444-555-6666		phone	444-555-6666		phone	444-555-6666		phone	444-555-6666		phone	444-555-6666
	address	404 Birch St, Boston, MA 02101		address	404 Birch St, Boston, MA 02101		address	404 Birch St, Boston, MA 02101		address	404 Birch St, Boston, MA 02101		address	404 Birch St, Boston, MA 02101
	created_at	2023-07-07 13:10:00		created_at	2023-07-07 13:10:00		created_at	2023-07-07 13:10:00		created_at	2023-07-07 13:10:00		created_at	2023-07-07 13:10:00
	updated_at	2023-07-07 13:10:00		updated_at	2023-07-07 13:10:00		updated_at	2023-07-07 13:10:00		updated_at	2023-07-07 13:10:00		updated_at	2023-07-07 13:10:00
	deleted_at			deleted_at			deleted_at			deleted_at			deleted_at	
Table 36	id	8	Table 37	id	8	Table 38	id	8	Table 39	id	8	Table 40	id	8
	name	Fiona Glenanne		name	Fiona Glenanne		name	Fiona Glenanne		name	Fiona Glenanne		name	Fiona Glenanne
	age	27		age	27		age	27		age	27		age	27
	gender	Female		gender	Female		gender	Female		gender	Female		gender	Female
	email	fiona.glenanne@example.com		email	fiona.glenanne@example.com		email	fiona.glenanne@example.com		email	fiona.glenanne@example.com		email	fiona.glenanne@example.com
	phone	666-777-8888		phone	666-777-8888		phone	666-777-8888		phone	666-777-8888		phone	666-777-8888
	address	505 Spruce St, Denver, CO 80201		address	505 Spruce St, Denver, CO 80201		address	505 Spruce St, Denver, CO 80201		address	505 Spruce St, Denver, CO 80201		address	505 Spruce St, Denver, CO 80201
	created_at	2023-08-08 07:30:00		created_at	2023-08-08 07:30:00		created_at	2023-08-08 07:30:00		created_at	2023-08-08 07:30:00		created_at	2023-08-08 07:30:00
	updated_at	2023-08-08 07:30:00		updated_at	2023-08-08 07:30:00		updated_at	2023-08-08 07:30:00		updated_at	2023-08-08 07:30:00		updated_at	2023-08-08 07:30:00
	deleted_at			deleted_at			deleted_at			deleted_at			deleted_at	
Table 41	id	9	Table 42	id	9	Table 43	id	9	Table 44	id	9	Table 45	id	9
	name	Gavin Hastings		name	Gavin Hastings		name	Gavin Hastings		name	Gavin Hastings		name	Gavin Hastings
	age	32		age	32		age	32		age	32		age	32
	gender	Male		gender	Male		gender	Male		gender	Male		gender	Male
	email	gavin.hastings@example.com		email	gavin.hastings@example.com		email	gavin.hastings@example.com		email	gavin.hastings@example.com		email	gavin.hastings@example.com
	phone	888-999-0000		phone	888-999-0000		phone	888-999-0000		phone	888-999-0000		phone	888-999-0000
	address	606 Ash St, Miami, FL 33101		address	606 Ash St, Miami, FL 33101		address	606 Ash St, Miami, FL 33101		address	606 Ash St, Miami, FL 33101		address	606 Ash St, Miami, FL 33101
	created_at	2023-09-09 15:55:00		created_at	2023-09-09 15:55:00		created_at	2023-09-09 15:55:00		created_at	2023-09-09 15:55:00		created_at	2023-09-09 15:55:00
	updated_at	2023-09-09 15:55:00		updated_at	2023-09-09 15:55:00		updated_at	2023-09-09 15:55:00		updated_at	2023-09-09 15:55:00		updated_at	2023-09-09 15:55:00
	deleted_at			deleted_at			deleted_at			deleted_at			deleted_at	
Table 46	id	10	Table 47	id	10	Table 48	id	10	Table 49	id	10	Table 50	id	10
	name	Helen Park		name	Helen Park		name	Helen Park		name	Helen Park		name	Helen Park
	age	29		age	29		age	29		age	29		age	29
	gender	Female		gender	Female		gender	Female		gender	Female		gender	Female
	email	helen.park@example.com		email	helen.park@example.com		email	helen.park@example.com		email	helen.park@example.com		email	helen.park@example.com
	phone	000-111-2222		phone	000-111-2222		phone	000-111-2222		phone	000-111-2222		phone	000-111-2222
	address	707 Hickory St, Austin, TX 78701		address	707 Hickory St, Austin, TX 78701		address	707 Hickory St, Austin, TX 78701		address	707 Hickory St, Austin, TX 78701		address	707 Hickory St, Austin, TX 78701
	created_at	2023-10-10 12:00:00		created_at	2023-10-10 12:00:00		created_at	2023-10-10 12:00:00		created_at	2023-10-10 12:00:00		created_at	2023-10-10 12:00:00
	updated_at	2023-10-10 12:00:00		updated_at	2023-10-10 12:00:00		updated_at	2023-10-10 12:00:00		updated_at	2023-10-10 12:00:00		updated_at	2023-10-10 12:00:00
	deleted_at			deleted_at			deleted_at			deleted_at			deleted_at	
Table 51	id	11	Table 52	id	11	Table 53	id	11	Table 54	id	11	Table 55	id	11
	name	Ivan Petrov		name	Ivan Petrov		name	Ivan Petrov		name	Ivan Petrov		name	Ivan Petrov
	age	40		age	40		age	40		age	40		age	40
	gender	Male		gender	Male		gender	Male		gender	Male		gender	Male
	email	ivan.petrov@example.com		email	ivan.petrov@example.com		email	ivan.petrov@example.com		email	ivan.petrov@example.com		email	ivan.petrov@example.com
	phone	999-888-7777		phone	999-888-7777		phone	999-888-7777		phone	999-888-7777		phone	999-888-7777
	address	808 Walnut St, San Diego, CA 92101		address	808 Walnut St, San Diego, CA 92101		address	808 Walnut St, San Diego, CA 92101		address	808 Walnut St, San Diego, CA 92101		address	808 Walnut St, San Diego, CA 92101
	created_at	2023-11-11 04:25:00		created_at	2023-11-11 04:25:00		created_at	2023-11-11 04:25:00		created_at	2023-11-11 04:25:00		created_at	2023-11-11 04:25:00
	updated_at	2023-11-11 04:25:00		updated_at	2023-11-11 04:25:00		updated_at	2023-11-11 04:25:00		updated_at	2023-11-11 04:25:00		updated_at	2023-11-11 04:25:00
	deleted_at			deleted_at			deleted_at			deleted_at			deleted_at	
Table 56	id	12	Table 57	id	12	Table 58	id	12	Table 59	id	12	Table 60	id	12
	name	Jasmine Lee		name	Jasmine Lee		name	Jasmine Lee		name	Jasmine Lee		name	Jasmine Lee
	age	26		age	26		age	26		age	26		age	26
	gender	Female		gender	Female		gender	Female		gender	Female		gender	Female
	email	jasmine.lee@example.com		email	jasmine.lee@example.com		email	jasmine.lee@example.com		email	jasmine.lee@example.com		email	jasmine.lee@example.com
	phone	777-666-5555		phone	777-666-5555		phone	777-666-5555		phone	777-666-5555		phone	777-666-5555
	address	909 Chestnut St, Philadelphia, PA 19101		address	909 Chestnut St, Philadelphia, PA 19101		address	909 Chestnut St, Philadelphia, PA 19101		address	909 Chestnut St, Philadelphia, PA 19101			

A tab for your emissions spreadsheet and must be submitted on a CD with your application. If you need to provide information for more pollutants, add rows as needed.

General		Product		Sales		Marketing		Finance		Operations		HR		IT	
ID	Name	Category	Sub-Category	Region	Channel	Volume	Revenue	Cost	Profit	Expenses	Assets	Liabilities	Equity	Salaries	Benefits
Electronics	Smartphone X	Electronics	Smartphones	North America	Online	1000	\$10000	\$6000	\$4000	\$2000	\$5000	\$3000	\$2000	\$1000	\$5000
	Smartphone X	Electronics	Smartphones	North America	Offline	500	\$5000	\$3000	\$2000	\$1000	\$2500	\$1500	\$1000	\$500	\$2500
	Smartphone X	Electronics	Smartphones	Europe	Online	800	\$8000	\$4800	\$3200	\$1600	\$4000	\$2400	\$1600	\$800	\$4000
	Smartphone X	Electronics	Smartphones	Europe	Offline	400	\$4000	\$2400	\$1600	\$800	\$2000	\$1200	\$800	\$400	\$2000
	Smartphone X	Electronics	Smartphones	Asia	Online	1200	\$12000	\$7200	\$4800	\$2400	\$6000	\$3600	\$2400	\$1200	\$6000
Electronics	Smartphone X	Electronics	Smartphones	Asia	Offline	600	\$6000	\$3600	\$2400	\$1200	\$3000	\$1800	\$1200	\$600	\$3000
	Smartphone X	Electronics	Smartphones	South America	Online	900	\$9000	\$5400	\$3600	\$1800	\$4500	\$2700	\$1800	\$900	\$4500
	Smartphone X	Electronics	Smartphones	South America	Offline	450	\$4500	\$2700	\$1800	\$900	\$2250	\$1350	\$900	\$450	\$2250
	Smartphone X	Electronics	Smartphones	Africa	Online	700	\$7000	\$4200	\$2800	\$1400	\$3500	\$2100	\$1400	\$700	\$3500
	Smartphone X	Electronics	Smartphones	Africa	Offline	350	\$3500	\$2100	\$1400	\$700	\$1750	\$1050	\$700	\$350	\$1750
Electronics	Smartphone X	Electronics	Smartphones	Oceania	Online	600	\$6000	\$3600	\$2400	\$1200	\$3000	\$1800	\$1200	\$600	\$3000
	Smartphone X	Electronics	Smartphones	Oceania	Offline	300	\$3000	\$1800	\$1200	\$600	\$1500	\$900	\$600	\$300	\$1500
	Smartphone Y	Electronics	Smartphones	North America	Online	800	\$8000	\$4800	\$3200	\$1600	\$4000	\$2400	\$1600	\$800	\$4000
	Smartphone Y	Electronics	Smartphones	North America	Offline	400	\$4000	\$2400	\$1600	\$800	\$2000	\$1200	\$800	\$400	\$2000
	Smartphone Y	Electronics	Smartphones	Europe	Online	700	\$7000	\$4200	\$2800	\$1400	\$3500	\$2100	\$1400	\$700	\$3500
Electronics	Smartphone Y	Electronics	Smartphones	Europe	Offline	350	\$3500	\$2100	\$1400	\$700	\$1750	\$1050	\$700	\$350	\$1750
	Smartphone Y	Electronics	Smartphones	Asia	Online	900	\$9000	\$5400	\$3600	\$1800	\$4500	\$2700	\$1800	\$900	\$4500
	Smartphone Y	Electronics	Smartphones	Asia	Offline	450	\$4500	\$2700	\$1800	\$900	\$2250	\$1350	\$900	\$450	\$2250
	Smartphone Y	Electronics	Smartphones	South America	Online	600	\$6000	\$3600	\$2400	\$1200	\$3000	\$1800	\$1200	\$600	\$3000
	Smartphone Y	Electronics	Smartphones	South America	Offline	300	\$3000	\$1800	\$1200	\$600	\$1500	\$900	\$600	\$300	\$1500
Electronics	Smartphone Y	Electronics	Smartphones	Africa	Online	500	\$5000	\$3000	\$2000	\$1000	\$2500	\$1500	\$1000	\$500	\$2500
	Smartphone Y	Electronics	Smartphones	Africa	Offline	250	\$2500	\$1500	\$1000	\$500	\$1250	\$750	\$500	\$250	\$1250
	Smartphone Z	Electronics	Smartphones	Oceania	Online	400	\$4000	\$2400	\$1600	\$800	\$2000	\$1200	\$800	\$400	\$2000
	Smartphone Z	Electronics	Smartphones	Oceania	Offline	200	\$2000	\$1200	\$800	\$400	\$1000	\$600	\$400	\$200	\$1000
	Smartphone Z	Electronics	Smartphones	North America	Online	600	\$6000	\$3600	\$2400	\$1200	\$3000	\$1800	\$1200	\$600	\$3000
Electronics	Smartphone Z	Electronics	Smartphones	North America	Offline	300	\$3000	\$1800	\$1200	\$600	\$1500	\$900	\$600	\$300	\$1500
	Tablet A	Electronics	Tablets	North America	Online	800	\$8000	\$4800	\$3200	\$1600	\$4000	\$2400	\$1600	\$800	\$4000
	Tablet A	Electronics	Tablets	North America	Offline	400	\$4000	\$2400	\$1600	\$800	\$2000	\$1200	\$800	\$400	\$2000
	Tablet A	Electronics	Tablets	Europe	Online	700	\$7000	\$4200	\$2800	\$1400	\$3500	\$2100	\$1400	\$700	\$3500
	Tablet A	Electronics	Tablets	Europe	Offline	350	\$3500	\$2100	\$1400	\$700	\$1750	\$1050	\$700	\$350	\$1750
Electronics	Tablet A	Electronics	Tablets	Asia	Online	900	\$9000	\$5400	\$3600	\$1800	\$4500	\$2700	\$1800	\$900	\$4500
	Tablet A	Electronics	Tablets	Asia	Offline	450	\$4500	\$2700	\$1800	\$900	\$2250	\$1350	\$900	\$450	\$2250
	Tablet A	Electronics	Tablets	South America	Online	600	\$6000	\$3600	\$2400	\$1200	\$3000	\$1800	\$1200	\$600	\$3000
	Tablet A	Electronics	Tablets	South America	Offline	300	\$3000	\$1800	\$1200	\$600	\$1500	\$900	\$600	\$300	\$1500
	Tablet A	Electronics	Tablets	Africa	Online	500	\$5000	\$3000	\$2000	\$1000	\$2500	\$1500	\$1000	\$500	\$2500
Electronics	Tablet A	Electronics	Tablets	Africa	Offline	250	\$2500	\$1500	\$1000	\$500	\$1250	\$750	\$500	\$250	\$1250
	Tablet B	Electronics	Tablets	Oceania	Online	400	\$4000	\$2400	\$1600	\$800	\$2000	\$1200	\$800	\$400	\$2000
	Tablet B	Electronics	Tablets	Oceania	Offline	200	\$2000	\$1200	\$800	\$400	\$1000	\$600	\$400	\$200	\$1000
	Tablet B	Electronics	Tablets	North America	Online	600	\$6000	\$3600	\$2400	\$1200	\$3000	\$1800	\$1200	\$600	\$3000
	Tablet B	Electronics	Tablets	North America	Offline	300	\$3000	\$1800	\$1200	\$600	\$1500	\$900	\$600	\$300	\$1500
Electronics	Tablet B	Electronics	Tablets	Europe	Online	500	\$5000	\$3000	\$2000	\$1000	\$2500	\$1500	\$1000	\$500	\$2500
	Tablet B	Electronics	Tablets	Europe	Offline	250	\$2500	\$1500	\$1000	\$500	\$1250	\$750	\$500	\$250	\$1250
	Smart TV X	Electronics	Smart TVs	North America	Online	600	\$6000	\$3600	\$2400	\$1200	\$3000	\$1800	\$1200	\$600	\$3000
	Smart TV X	Electronics	Smart TVs	North America	Offline	300	\$3000	\$1800	\$1200	\$600	\$1500	\$900	\$600	\$300	\$1500
	Smart TV X	Electronics	Smart TVs	Europe	Online	500	\$5000	\$3000	\$2000	\$1000	\$2500	\$1500	\$1000	\$500	\$2500
Electronics	Smart TV X	Electronics	Smart TVs	Europe	Offline	250	\$2500	\$1500	\$1000	\$500	\$1250	\$750	\$500	\$250	\$1250
	Smart TV Y	Electronics	Smart TVs	North America	Online	400	\$4000	\$2400	\$1600	\$800	\$2000	\$1200	\$800	\$400	\$2000
	Smart TV Y	Electronics	Smart TVs	North America	Offline	200	\$2000	\$1200	\$800	\$400	\$1000	\$600	\$400	\$200	\$1000
	Smart TV Y	Electronics	Smart TVs	Europe	Online	300	\$3000	\$1800	\$1200	\$600	\$1500	\$900	\$600	\$300	\$1500
	Smart TV Y	Electronics	Smart TVs	Europe	Offline	150	\$1500	\$900	\$600	\$300	\$750	\$450	\$300	\$150	\$750
Electronics	Smart TV Y	Electronics	Smart TVs	Asia	Online	500	\$5000	\$3000	\$2000	\$1000	\$2500	\$1500	\$1000	\$500	\$2500
	Smart TV Y	Electronics	Smart TVs	Asia	Offline	250	\$2500	\$1500	\$1000	\$500	\$1250	\$750	\$500	\$250	\$1250
	Smart TV Z	Electronics	Smart TVs	South America	Online	300	\$3000	\$1800	\$1200	\$600	\$1500	\$900	\$600	\$300	\$1500
	Smart TV Z	Electronics	Smart TVs	South America	Offline	150	\$1500	\$900	\$600	\$300	\$750	\$450	\$300	\$150	\$750
	Smart TV Z	Electronics	Smart TVs	Africa	Online	200	\$2000	\$1200	\$800	\$400	\$1000	\$600	\$400	\$200	\$1000
Electronics	Smart TV Z	Electronics	Smart TVs	Africa	Offline	100	\$1000	\$600	\$400	\$200	\$500	\$300	\$200	\$100	\$500
	Smart TV Z	Electronics	Smart TVs	Oceania	Online	100	\$1000	\$600	\$400	\$200	\$500	\$300	\$200	\$100	\$500
	Smart TV Z	Electronics	Smart TVs	Oceania	Offline	50	\$500	\$300	\$200	\$100	\$250	\$150	\$100	\$50	\$250
	Smart TV Z	Electronics	Smart TVs	North America	Online	200	\$2000	\$1200	\$800	\$400	\$1000	\$600	\$400	\$200	\$1000
	Smart TV Z	Electronics	Smart TVs	North America	Offline	100	\$1000	\$600	\$400	\$200	\$500	\$300	\$200	\$100	\$500
Electronics	Smart TV Z	Electronics	Smart TVs	Europe	Online	100	\$1000	\$600	\$400	\$200	\$500	\$300	\$200	\$100	\$500
	Smart TV Z	Electronics	Smart TVs	Europe	Offline	50	\$500	\$300	\$200	\$100	\$250	\$150	\$100	\$50	\$250
	Smart TV Z	Electronics	Smart TVs	Asia	Online	100	\$1000	\$600	\$400	\$200	\$500	\$300	\$200	\$100	\$500
	Smart TV Z	Electronics	Smart TVs	Asia	Offline	50	\$500	\$300	\$200	\$100	\$250	\$150	\$100	\$50	\$250
	Smart TV Z	Electronics	Smart TVs	South America	Online	100	\$1000	\$600	\$400	\$200	\$500	\$300	\$200	\$100	\$500
Electronics	Smart TV Z	Electronics	Smart TVs	South America	Offline	50	\$500	\$300	\$200	\$100	\$250	\$150	\$100	\$50	\$250
	Smart TV Z	Electronics	Smart TVs	Africa	Online	100	\$1000	\$600	\$400	\$200	\$500	\$300	\$200	\$100	\$500
	Smart TV Z	Electronics	Smart TVs	Africa	Offline	50	\$500	\$300	\$200	\$100	\$250	\$150	\$100	\$50	\$250
	Smart TV Z	Electronics	Smart TVs	Oceania	Online	100	\$1000	\$600	\$400	\$200	\$500	\$300	\$200	\$100	\$500
	Smart TV Z	Electronics	Smart TVs	Oceania	Offline	50	\$500	\$300	\$200	\$100	\$250	\$150	\$100	\$50	\$250
Electronics	Smart TV Z	Electronics	Smart TVs	North America	Online	100	\$1000	\$600	\$400	\$200	\$500	\$300	\$200	\$100	\$500
	Smart TV Z	Electronics	Smart TVs	North America	Offline	50	\$500	\$300	\$200	\$100	\$250	\$150	\$100	\$50	\$250
	Smart TV Z	Electronics	Smart TVs	Europe	Online	100	\$1000	\$600	\$400	\$200	\$500	\$300	\$200	\$100	\$500
	Smart TV Z	Electronics	Smart TVs	Europe	Offline	50	\$500	\$300	\$200	\$100	\$250	\$150	\$100	\$50	\$250
	Smart TV Z	Electronics	Smart TVs	Asia	Online	100	\$1000	\$600	\$400	\$200	\$500	\$300	\$200	\$100	\$500
Electronics	Smart TV Z	Electronics	Smart TVs	Asia	Offline	50	\$500	\$300	\$200	\$100	\$250	\$150	\$100	\$50	\$250
	Smart TV Z	Electronics	Smart TVs	South America	Online	100	\$1000	\$600	\$400	\$200	\$500	\$300	\$200	\$100	\$500
	Smart TV Z	Electronics	Smart TVs	South America	Offline	50	\$500	\$300	\$200	\$100	\$250	\$150	\$100	\$50	\$250
	Smart TV Z	Electronics	Smart TVs	Africa	Online	100	\$1000	\$600	\$400	\$200	\$500	\$300	\$200	\$100	\$500
	Smart TV Z	Electronics	Smart TVs	Africa	Offline	50	\$500	\$300	\$200	\$100	\$250	\$150	\$100	\$50	\$250
Electronics	Smart TV Z	Electronics	Smart TVs	Oceania	Online	100	\$1000	\$600	\$400	\$200	\$500	\$300	\$200	\$100	\$500
	Smart TV Z	Electronics	Smart TVs	Oceania	Offline	50	\$500	\$300	\$200	\$100	\$250	\$150	\$100	\$50	\$250
	Smart TV Z	Electronics	Smart TVs	North America	Online	100	\$1000	\$600	\$400	\$200	\$500	\$300	\$200	\$100	\$500
	Smart TV Z	Electronics	Smart TVs	North America	Offline	50	\$500	\$300	\$200	\$100	\$250	\$150	\$100	\$50	\$250
	Smart TV Z	Electronics	Smart TVs	Europe	Online	100	\$1000	\$600	\$400	\$200	\$500	\$300	\$200	\$100	\$500
Electronics	Smart TV Z	Electronics	Smart TVs	Europe	Offline	50	\$500	\$300	\$200	\$100	\$250	\$150	\$100	\$50	\$250
	Smart TV Z	Electronics	Smart TVs	Asia	Online	100	\$1000	\$600	\$400	\$200	\$500	\$300	\$200	\$100	\$500
	Smart TV Z	Electronics	Smart TVs	Asia	Offline	50	\$500	\$300	\$200	\$100	\$250	\$150	\$100	\$50	\$250
	Smart TV Z	Electronics	Smart TVs	South America	Online	100	\$1000	\$600	\$400	\$200	\$500	\$300	\$200	\$100	\$500
	Smart TV Z	Electronics	Smart TVs	South America	Offline	50	\$500	\$300	\$200	\$100	\$250	\$150	\$100	\$50	\$250
Electronics	Smart TV Z	Electronics	Smart TVs	Africa	Online	100	\$1000	\$600	\$400	\$200	\$500	\$300	\$200	\$100	\$500
	Smart TV Z	Electronics	Smart TVs	Africa	Offline	50	\$500	\$300	\$200	\$100	\$250	\$150	\$100	\$50	\$250
	Smart TV Z	Electronics	Smart TVs	Oceania	Online	100	\$1000	\$600	\$400	\$200	\$500	\$300	\$200	\$100	\$500
	Smart TV Z	Electronics	Smart TVs	Oceania	Offline	50	\$500	\$300	\$200	\$100	\$250	\$150	\$100	\$50	\$250
	Smart TV Z	Electronics	Smart TVs	North America	Online	100	\$1000	\$600	\$400	\$200	\$500	\$300	\$200	\$100	\$500
Electronics	Smart TV Z	Electronics	Smart TVs	North America	Offline	50	\$500	\$300	\$200	\$100	\$250	\$150	\$100	\$50	\$250
	Smart TV Z	Electronics	Smart TVs	Europe	Online	100	\$1000	\$600	\$400	\$200	\$500	\$300	\$200	\$100	\$500
	Smart TV Z	Electronics	Smart TVs	Europe	Offline	50	\$500	\$300	\$200	\$100	\$250	\$150	\$100	\$50	\$250
	Smart TV Z	Electronics	Smart TVs	Asia	Online	100	\$100								

You may use and submit this spreadsheet in place of Form G-07. Follow the instructions for Form G-07 to complete this spreadsheet. This spreadsheet can be copied into a tab for your emissions spreadsheet and a CD with your application. If you need to provide emissions information for more emissions units, add more sets of columns (3a through 3f) to the right as needed in the Emissions by Source table. If you need to provide pollutants, add rows as needed.

a)	1) Spaltung eines Vektors in Komponenten (20 % der Punkte, die bei der weiteren Bearbeitung der Aufgabenstellung zu berücksichtigen sind) 2) Bestimmung der Komponenten eines Vektors (20 % der Punkte, die bei der weiteren Bearbeitung der Aufgabenstellung zu berücksichtigen sind) 3) Bestimmung der Komponenten eines Vektors (20 % der Punkte, die bei der weiteren Bearbeitung der Aufgabenstellung zu berücksichtigen sind)	b)	1) Spaltung eines Vektors in Komponenten (20 % der Punkte, die bei der weiteren Bearbeitung der Aufgabenstellung zu berücksichtigen sind) 2) Bestimmung der Komponenten eines Vektors (20 % der Punkte, die bei der weiteren Bearbeitung der Aufgabenstellung zu berücksichtigen sind) 3) Bestimmung der Komponenten eines Vektors (20 % der Punkte, die bei der weiteren Bearbeitung der Aufgabenstellung zu berücksichtigen sind)	c)	1) Spaltung eines Vektors in Komponenten (20 % der Punkte, die bei der weiteren Bearbeitung der Aufgabenstellung zu berücksichtigen sind) 2) Bestimmung der Komponenten eines Vektors (20 % der Punkte, die bei der weiteren Bearbeitung der Aufgabenstellung zu berücksichtigen sind) 3) Bestimmung der Komponenten eines Vektors (20 % der Punkte, die bei der weiteren Bearbeitung der Aufgabenstellung zu berücksichtigen sind)

1a) AQ Facility ID number:
2) Facility name:

Performance by Source Type															
Self-Hosted Windows				Self-Hosted Linux				SaaS Windows				SaaS Linux			
Source Type	Platform	Version	OS	Actual	Target	Delta	Score	Source Type	Platform	Version	OS	Actual	Target	Delta	Score
Product Line	PL1	1.0.0	Windows	100	100	0	95	PL1	1.0.0	Linux	100	100	0	95	
	PL2	1.0.0	Windows	100	100	0	95	PL2	1.0.0	Linux	100	100	0	95	
	PL3	1.0.0	Windows	100	100	0	95	PL3	1.0.0	Linux	100	100	0	95	
	PL4	1.0.0	Windows	100	100	0	95	PL4	1.0.0	Linux	100	100	0	95	
	PL5	1.0.0	Windows	100	100	0	95	PL5	1.0.0	Linux	100	100	0	95	
Feature Set	FS1	1.0.0	Windows	100	100	0	95	FS1	1.0.0	Linux	100	100	0	95	
	FS2	1.0.0	Windows	100	100	0	95	FS2	1.0.0	Linux	100	100	0	95	
	FS3	1.0.0	Windows	100	100	0	95	FS3	1.0.0	Linux	100	100	0	95	
	FS4	1.0.0	Windows	100	100	0	95	FS4	1.0.0	Linux	100	100	0	95	
	FS5	1.0.0	Windows	100	100	0	95	FS5	1.0.0	Linux	100	100	0	95	
User Roles	UR1	1.0.0	Windows	100	100	0	95	UR1	1.0.0	Linux	100	100	0	95	
	UR2	1.0.0	Windows	100	100	0	95	UR2	1.0.0	Linux	100	100	0	95	
	UR3	1.0.0	Windows	100	100	0	95	UR3	1.0.0	Linux	100	100	0	95	
	UR4	1.0.0	Windows	100	100	0	95	UR4	1.0.0	Linux	100	100	0	95	
	UR5	1.0.0	Windows	100	100	0	95	UR5	1.0.0	Linux	100	100	0	95	
Deployment	DP1	1.0.0	Windows	100	100	0	95	DP1	1.0.0	Linux	100	100	0	95	
	DP2	1.0.0	Windows	100	100	0	95	DP2	1.0.0	Linux	100	100	0	95	
	DP3	1.0.0	Windows	100	100	0	95	DP3	1.0.0	Linux	100	100	0	95	
	DP4	1.0.0	Windows	100	100	0	95	DP4	1.0.0	Linux	100	100	0	95	
	DP5	1.0.0	Windows	100	100	0	95	DP5	1.0.0	Linux	100	100	0	95	
2-Phase Rollout	2PR1	1.0.0	Windows	100	100	0	95	2PR1	1.0.0	Linux	100	100	0	95	
	2PR2	1.0.0	Windows	100	100	0	95	2PR2	1.0.0	Linux	100	100	0	95	
	2PR3	1.0.0	Windows	100	100	0	95	2PR3	1.0.0	Linux	100	100	0	95	
	2PR4	1.0.0	Windows	100	100	0	95	2PR4	1.0.0	Linux	100	100	0	95	
	2PR5	1.0.0	Windows	100	100	0	95	2PR5	1.0.0	Linux	100	100	0	95	
Release	R1	1.0.0	Windows	100	100	0	95	R1	1.0.0	Linux	100	100	0	95	
	R2	1.0.0	Windows	100	100	0	95	R2	1.0.0	Linux	100	100	0	95	
	R3	1.0.0	Windows	100	100	0	95	R3	1.0.0	Linux	100	100	0	95	
	R4	1.0.0	Windows	100	100	0	95	R4	1.0.0	Linux	100	100	0	95	
	R5	1.0.0	Windows	100	100	0	95	R5	1.0.0	Linux	100	100	0	95	
Performance	P1	1.0.0	Windows	100	100	0	95	P1	1.0.0	Linux	100	100	0	95	
	P2	1.0.0	Windows	100	100	0	95	P2	1.0.0	Linux	100	100	0	95	
	P3	1.0.0	Windows	100	100	0	95	P3	1.0.0	Linux	100	100	0	95	
	P4	1.0.0	Windows	100	100	0	95	P4	1.0.0	Linux	100	100	0	95	
	P5	1.0.0	Windows	100	100	0	95	P5	1.0.0	Linux	100	100	0	95	
Availability	A1	1.0.0	Windows	100	100	0	95	A1	1.0.0	Linux	100	100	0	95	
	A2	1.0.0	Windows	100	100	0	95	A2	1.0.0	Linux	100	100	0	95	
	A3	1.0.0	Windows	100	100	0	95	A3	1.0.0	Linux	100	100	0	95	
	A4	1.0.0	Windows	100	100	0	95	A4	1.0.0	Linux	100	100	0	95	
	A5	1.0.0	Windows	100	100	0	95	A5	1.0.0	Linux	100	100	0	95	
Compliance	C1	1.0.0	Windows	100	100	0	95	C1	1.0.0	Linux	100	100	0	95	
	C2	1.0.0	Windows	100	100	0	95	C2	1.0.0	Linux	100	100	0	95	
	C3	1.0.0	Windows	100	100	0	95	C3	1.0.0	Linux	100	100	0	95	
	C4	1.0.0	Windows	100	100	0	95	C4	1.0.0	Linux	100	100	0	95	
	C5	1.0.0	Windows	100	100	0	95	C5	1.0.0	Linux	100	100	0	95	
Integration	I1	1.0.0	Windows	100	100	0	95	I1	1.0.0	Linux	100	100	0	95	
	I2	1.0.0	Windows	100	100	0	95	I2	1.0.0	Linux	100	100	0	95	
	I3	1.0.0	Windows	100	100	0	95	I3	1.0.0	Linux	100	100	0	95	
	I4	1.0.0	Windows	100	100	0	95	I4	1.0.0	Linux	100	100	0	95	
	I5	1.0.0	Windows	100	100	0	95	I5	1.0.0	Linux	100	100	0	95	
Reporting	RPT1	1.0.0	Windows	100	100	0	95	RPT1	1.0.0	Linux	100	100	0	95	
	RPT2	1.0.0	Windows	100	100	0	95	RPT2	1.0.0	Linux	100	100	0	95	
	RPT3	1.0.0	Windows	100	100	0	95	RPT3	1.0.0	Linux	100	100	0	95	
	RPT4	1.0.0	Windows	100	100	0	95	RPT4	1.0.0	Linux	100	100	0	95	
	RPT5	1.0.0	Windows	100	100	0	95	RPT5	1.0.0	Linux	100	100	0	95	
Monitoring	M1	1.0.0	Windows	100	100	0	95	M1	1.0.0	Linux	100	100	0	95	
	M2	1.0.0	Windows	100	100	0	95	M2	1.0.0	Linux	100	100	0	95	
	M3	1.0.0	Windows	100	100	0	95	M3	1.0.0	Linux	100	100	0	95	
	M4	1.0.0	Windows	100	100	0	95	M4	1.0.0	Linux	100	100	0	95	
	M5	1.0.0	Windows	100	100	0	95	M5	1.0.0	Linux	100	100	0	95	
Logging	L1	1.0.0	Windows	100	100	0	95	L1	1.0.0	Linux	100	100	0	95	
	L2	1.0.0	Windows	100	100	0	95	L2	1.0.0	Linux	100	100	0	95	
	L3	1.0.0	Windows	100	100	0	95	L3	1.0.0	Linux	100	100	0	95	
	L4	1.0.0	Windows	100	100	0	95	L4	1.0.0	Linux	100	100	0	95	
	L5	1.0.0	Windows	100	100	0	95	L5	1.0.0	Linux	100	100	0	95	
Configuration	C1	1.0.0	Windows	100	100	0	95	C1	1.0.0	Linux	100	100	0	95	
	C2	1.0.0	Windows	100	100	0	95	C2	1.0.0	Linux	100	100	0	95	
	C3	1.0.0	Windows	100	100	0	95	C3	1.0.0	Linux	100	100	0	95	
	C4	1.0.0	Windows	100	100	0	95	C4	1.0.0	Linux	100	100	0	95	
	C5	1.0.0	Windows	100	100	0	95	C5	1.0.0	Linux	100	100	0	95	
Security	S1	1.0.0	Windows	100	100	0	95	S1	1.0.0	Linux	100	100	0	95	
	S2	1.0.0	Windows	100	100	0	95	S2	1.0.0	Linux	100	100	0	95	
	S3	1.0.0	Windows	100	100	0	95	S3	1.0.0	Linux	100	100	0	95	
	S4	1.0.0	Windows	100	100	0	95	S4	1.0.0	Linux	100	100	0	95	
	S5	1.0.0	Windows	100	100	0	95	S5	1.0.0	Linux	100	100	0	95	
Documentation	D1	1.0.0	Windows	100	100	0	95	D1	1.0.0	Linux	100	100	0	95	
	D2	1.0.0	Windows	100	100	0	95	D2	1.0.0	Linux	100	100	0	95	
	D3	1.0.0	Windows	100	100	0	95	D3	1.0.0	Linux	100	100	0	95	
	D4	1.0.0	Windows	100	100	0	95	D4	1.0.0	Linux	100	100	0	95	
	D5	1.0.0	Windows	100	100	0	95	D5	1.0.0	Linux	100	100	0	95	
Testing	T1	1.0.0	Windows	100	100	0	95	T1	1.0.0	Linux	100	100	0	95	
	T2	1.0.0	Windows	100	100	0	95	T2	1.0.0	Linux	100	100	0	95	
	T3	1.0.0	Windows	100	100	0	95	T3	1.0.0	Linux	100	100	0	95	
	T4	1.0.0	Windows	100	100	0	95	T4	1.0.0	Linux	100	100	0	95	
	T5	1.0.0	Windows	100	100	0	95	T5	1.0.0	Linux	100	100	0	95	
Deployment	DP1	1.0.0	Windows	100	100	0	95	DP1	1.0.0	Linux	100	100	0	95	
	DP2	1.0.0	Windows	100	100	0	95	DP2	1.0.0	Linux	100	100	0	95	
	DP3	1.0.0	Windows	100	100	0	95	DP3	1.0.0	Linux	100	100	0	95	
	DP4	1.0.0	Windows	100	100	0	95	DP4	1.0.0	Linux	100	100	0	95	
	DP5	1.0.0	Windows	100	100	0	95	DP5	1.0.0	Linux	100	100	0	95	
Reporting	RPT1	1.0.0	Windows	100	100	0	95	RPT1	1.0.0	Linux	100	100	0	95	
	RPT2	1.0.0	Windows	100	100	0	95	RPT2	1.0.0	Linux	100	100	0	95	
	RPT3	1.0.0	Windows	100	100	0	95	RPT3	1.0.0	Linux	100	100	0	95	
	RPT4	1.0.0	Windows	100	100	0	95	RPT4	1.0.0	Linux	100	100	0	95	
	RPT5	1.0.0	Windows	100	100	0	95	RPT5	1.0.0	Linux	100	100	0	95	
Monitoring	M1	1.0.0	Windows	100	100	0	95	M1	1.0.0	Linux	100	100	0	95	
	M2	1.0.0	Windows	100	100	0	95	M2	1.0.0	Linux	100	100	0	95	
	M3	1.0.0	Windows	100	100	0	95	M3	1.0.0	Linux	100	100	0	95	
	M4	1.0.0	Windows	100	100	0	95	M4	1.0.0	Linux	100	100	0	95	
	M5	1.0.0	Windows	100	100	0	95	M5	1.0.0	Linux	100	100	0	95	
Logging	L1	1.0.0	Windows	100	100	0	95	L1	1.0.0	Linux	100	100	0	95	
	L2	1.0.0	Windows	100	100	0	95	L2	1.0.0	Linux	100	100	0	95	
	L3	1.0.0	Windows	100	100	0	95	L3	1.0.0	Linux	100	100	0	95	
	L4	1.0.0	Windows	100	100	0	95	L4	1.0.0	Linux	100	100	0	95	
	L5	1.0.0	Windows	100	100	0	95	L5	1.0.0	Linux	100	100	0	95	
Configuration	C1	1.0.0	Windows	100	100	0	95	C1	1.0.0	Linux	100	100	0	95	
	C2	1.0.0	Windows	100	100	0	95	C2	1.0.0	Linux	100	100	0	95	
	C3	1.0.0	Windows	100	100	0	95	C3	1.0.0	Linux	100	100	0	95	
	C4	1.0.0	Windows	100	100	0	95	C4	1.0.0	Linux	100	100	0	95	
	C5	1.0.0	Windows	100	100	0	95	C5	1.0.0	Linux	100	100	0	95	
Security	S1	1.0.0	Windows	100	100	0	95	S1	1.0.0	Linux	100	100	0	95	
	S2	1.0.0	Windows	100	100	0	95	S2	1.0.0	Linux	100	100	0	95	
	S3	1.0.0	Windows	100											

You may use and submit this spreadsheet in place of Form GH-07. Follow the instructions for Form GH-07 to complete this spreadsheet. This spreadsheet can be copied into a tab for your emissions spreadsheet and must be submitted on a CD with your application. If you need to provide emissions information for more emissions units, add more sets of columns (3a through 3f) to the right as needed in the Emissions by Source table. If you need to provide information for more

Application is being submitted as a compact disc (CD) or flash drive, and the estimate calculation spreadsheet(s) are included on the CD or flash drive.	Application is being submitted as a compact disc (CD) or flash drive, and the estimate calculation spreadsheet(s) are included on the CD or flash drive.	Application is being submitted as a compact disc (CD) or flash drive, and the estimate calculation spreadsheet(s) are included on the CD or flash drive.	Application is being submitted as a compact disc (CD) or flash drive, and the estimate calculation spreadsheet(s) are included on the CD or flash drive.	Application is being submitted as a compact disc (CD) or flash drive, and the estimate calculation spreadsheet(s) are included on the CD or flash drive.

D-GLUCOSE
SOLUBLE C

Data Set Identifier		Data Set Name		Data Set Location		Data Set Size		Data Set Type		Data Set Format		Data Set Version		Data Set Date		Data Set Author		Data Set License		Data Set Description		Data Set Notes		Data Set Tags		Data Set ID	
Dataset Name	File Path	Dataset Name	File Path	Dataset Name	File Path	Dataset Name	File Path	Dataset Name	File Path	Dataset Name	File Path	Dataset Name	File Path	Dataset Name	File Path	Dataset Name	File Path	Dataset Name	File Path	Dataset Name	File Path	Dataset Name	File Path	Dataset Name	File Path	Dataset Name	File Path
Dataset 1	/data/dataset1	Dataset 2	/data/dataset2	Dataset 3	/data/dataset3	Dataset 4	/data/dataset4	Dataset 5	/data/dataset5	Dataset 6	/data/dataset6	Dataset 7	/data/dataset7	Dataset 8	/data/dataset8	Dataset 9	/data/dataset9	Dataset 10	/data/dataset10	Dataset 11	/data/dataset11	Dataset 12	/data/dataset12	Dataset 13	/data/dataset13	Dataset 14	/data/dataset14
Dataset 15	/data/dataset15	Dataset 16	/data/dataset16	Dataset 17	/data/dataset17	Dataset 18	/data/dataset18	Dataset 19	/data/dataset19	Dataset 20	/data/dataset20	Dataset 21	/data/dataset21	Dataset 22	/data/dataset22	Dataset 23	/data/dataset23	Dataset 24	/data/dataset24	Dataset 25	/data/dataset25	Dataset 26	/data/dataset26	Dataset 27	/data/dataset27	Dataset 28	/data/dataset28
Dataset 29	/data/dataset29	Dataset 30	/data/dataset30	Dataset 31	/data/dataset31	Dataset 32	/data/dataset32	Dataset 33	/data/dataset33	Dataset 34	/data/dataset34	Dataset 35	/data/dataset35	Dataset 36	/data/dataset36	Dataset 37	/data/dataset37	Dataset 38	/data/dataset38	Dataset 39	/data/dataset39	Dataset 40	/data/dataset40	Dataset 41	/data/dataset41	Dataset 42	/data/dataset42
Dataset 43	/data/dataset43	Dataset 44	/data/dataset44	Dataset 45	/data/dataset45	Dataset 46	/data/dataset46	Dataset 47	/data/dataset47	Dataset 48	/data/dataset48	Dataset 49	/data/dataset49	Dataset 50	/data/dataset50	Dataset 51	/data/dataset51	Dataset 52	/data/dataset52	Dataset 53	/data/dataset53	Dataset 54	/data/dataset54	Dataset 55	/data/dataset55	Dataset 56	/data/dataset56
Dataset 57	/data/dataset57	Dataset 58	/data/dataset58	Dataset 59	/data/dataset59	Dataset 60	/data/dataset60	Dataset 61	/data/dataset61	Dataset 62	/data/dataset62	Dataset 63	/data/dataset63	Dataset 64	/data/dataset64	Dataset 65	/data/dataset65	Dataset 66	/data/dataset66	Dataset 67	/data/dataset67	Dataset 68	/data/dataset68	Dataset 69	/data/dataset69	Dataset 70	/data/dataset70
Dataset 71	/data/dataset71	Dataset 72	/data/dataset72	Dataset 73	/data/dataset73	Dataset 74	/data/dataset74	Dataset 75	/data/dataset75	Dataset 76	/data/dataset76	Dataset 77	/data/dataset77	Dataset 78	/data/dataset78	Dataset 79	/data/dataset79	Dataset 80	/data/dataset80	Dataset 81	/data/dataset81	Dataset 82	/data/dataset82	Dataset 83	/data/dataset83	Dataset 84	/data/dataset84
Dataset 85	/data/dataset85	Dataset 86	/data/dataset86	Dataset 87	/data/dataset87	Dataset 88	/data/dataset88	Dataset 89	/data/dataset89	Dataset 90	/data/dataset90	Dataset 91	/data/dataset91	Dataset 92	/data/dataset92	Dataset 93	/data/dataset93	Dataset 94	/data/dataset94	Dataset 95	/data/dataset95	Dataset 96	/data/dataset96	Dataset 97	/data/dataset97	Dataset 98	/data/dataset98
Dataset 99	/data/dataset99	Dataset 100	/data/dataset100	Dataset 101	/data/dataset101	Dataset 102	/data/dataset102	Dataset 103	/data/dataset103	Dataset 104	/data/dataset104	Dataset 105	/data/dataset105	Dataset 106	/data/dataset106	Dataset 107	/data/dataset107	Dataset 108	/data/dataset108	Dataset 109	/data/dataset109	Dataset 110	/data/dataset110	Dataset 111	/data/dataset111	Dataset 112	/data/dataset112
Dataset 113	/data/dataset113	Dataset 114	/data/dataset114	Dataset 115	/data/dataset115	Dataset 116	/data/dataset116	Dataset 117	/data/dataset117	Dataset 118	/data/dataset118	Dataset 119	/data/dataset119	Dataset 120	/data/dataset120	Dataset 121	/data/dataset121	Dataset 122	/data/dataset122	Dataset 123	/data/dataset123	Dataset 124	/data/dataset124	Dataset 125	/data/dataset125	Dataset 126	/data/dataset126
Dataset 127	/data/dataset127	Dataset 128	/data/dataset128	Dataset 129	/data/dataset129	Dataset 130	/data/dataset130	Dataset 131	/data/dataset131	Dataset 132	/data/dataset132	Dataset 133	/data/dataset133	Dataset 134	/data/dataset134	Dataset 135	/data/dataset135	Dataset 136	/data/dataset136	Dataset 137	/data/dataset137	Dataset 138	/data/dataset138	Dataset 139	/data/dataset139	Dataset 140	/data/dataset140
Dataset 141	/data/dataset141	Dataset 142	/data/dataset142	Dataset 143	/data/dataset143	Dataset 144	/data/dataset144	Dataset 145	/data/dataset145	Dataset 146	/data/dataset146	Dataset 147	/data/dataset147	Dataset 148	/data/dataset148	Dataset 149	/data/dataset149	Dataset 150	/data/dataset150	Dataset 151	/data/dataset151	Dataset 152	/data/dataset152	Dataset 153	/data/dataset153	Dataset 154	/data/dataset154
Dataset 155	/data/dataset155	Dataset 156	/data/dataset156	Dataset 157	/data/dataset157	Dataset 158	/data/dataset158	Dataset 159	/data/dataset159	Dataset 160	/data/dataset160	Dataset 161	/data/dataset161	Dataset 162	/data/dataset162	Dataset 163	/data/dataset163	Dataset 164	/data/dataset164	Dataset 165	/data/dataset165	Dataset 166	/data/dataset166	Dataset 167	/data/dataset167	Dataset 168	/data/dataset168
Dataset 169	/data/dataset169	Dataset 170	/data/dataset170	Dataset 171	/data/dataset171	Dataset 172	/data/dataset172	Dataset 173	/data/dataset173	Dataset 174	/data/dataset174	Dataset 175	/data/dataset175	Dataset 176	/data/dataset176	Dataset 177	/data/dataset177	Dataset 178	/data/dataset178	Dataset 179	/data/dataset179	Dataset 180	/data/dataset180	Dataset 181	/data/dataset181	Dataset 182	/data/dataset182
Dataset 183	/data/dataset183	Dataset 184	/data/dataset184	Dataset 185	/data/dataset185	Dataset 186	/data/dataset186	Dataset 187	/data/dataset187	Dataset 188	/data/dataset188	Dataset 189	/data/dataset189	Dataset 190	/data/dataset190	Dataset 191	/data/dataset191	Dataset 192	/data/dataset192	Dataset 193	/data/dataset193	Dataset 194	/data/dataset194	Dataset 195	/data/dataset195	Dataset 196	/data/dataset196
Dataset 197	/data/dataset197	Dataset 198	/data/dataset198	Dataset 199	/data/dataset199	Dataset 200	/data/dataset200	Dataset 201	/data/dataset201	Dataset 202	/data/dataset202	Dataset 203	/data/dataset203	Dataset 204	/data/dataset204	Dataset 205	/data/dataset205	Dataset 206	/data/dataset206	Dataset 207	/data/dataset207	Dataset 208	/data/dataset208	Dataset 209	/data/dataset209	Dataset 210	/data/dataset210
Dataset 211	/data/dataset211	Dataset 212	/data/dataset212	Dataset 213	/data/dataset213	Dataset 214	/data/dataset214	Dataset 215	/data/dataset215	Dataset 216	/data/dataset216	Dataset 217	/data/dataset217	Dataset 218	/data/dataset218	Dataset 219	/data/dataset219	Dataset 220	/data/dataset220	Dataset 221	/data/dataset221	Dataset 222	/data/dataset222	Dataset 223	/data/dataset223	Dataset 224	/data/dataset224
Dataset 225	/data/dataset225	Dataset 226	/data/dataset226	Dataset 227	/data/dataset227	Dataset 228	/data/dataset228	Dataset 229	/data/dataset229	Dataset 230	/data/dataset230	Dataset 231	/data/dataset231	Dataset 232	/data/dataset232	Dataset 233	/data/dataset233	Dataset 234	/data/dataset234	Dataset 235	/data/dataset235	Dataset 236	/data/dataset236	Dataset 237	/data/dataset237	Dataset 238	/data/dataset238
Dataset 239	/data/dataset239	Dataset 240	/data/dataset240	Dataset 241	/data/dataset241	Dataset 242	/data/dataset242	Dataset 243	/data/dataset243	Dataset 244	/data/dataset244	Dataset 245	/data/dataset245	Dataset 246	/data/dataset246	Dataset 247	/data/dataset247	Dataset 248	/data/dataset248	Dataset 249	/data/dataset249	Dataset 250	/data/dataset250	Dataset 251	/data/dataset251	Dataset 252	/data/dataset252
Dataset 253	/data/dataset253	Dataset 254	/data/dataset254	Dataset 255	/data/dataset255	Dataset 256	/data/dataset256	Dataset 257	/data/dataset257	Dataset 258	/data/dataset258	Dataset 259	/data/dataset259	Dataset 260	/data/dataset260	Dataset 261	/data/dataset261	Dataset 262	/data/dataset262	Dataset 263	/data/dataset263	Dataset 264	/data/dataset264	Dataset 265	/data/dataset265	Dataset 266	/data/dataset266
Dataset 267	/data/dataset267	Dataset 268	/data/dataset268	Dataset 269	/data/dataset269	Dataset 270	/data/dataset270	Dataset 271	/data/dataset271	Dataset 272	/data/dataset272	Dataset 273	/data/dataset273	Dataset 274	/data/dataset274	Dataset 275	/data/dataset275	Dataset 276	/data/dataset276	Dataset 277	/data/dataset277	Dataset 278	/data/dataset278	Dataset 279	/data/dataset279	Dataset 280	/data/dataset280
Dataset 281	/data/dataset281	Dataset 282	/data/dataset282	Dataset 283	/data/dataset283	Dataset 284	/data/dataset284	Dataset 285	/data/dataset285	Dataset 286	/data/dataset286	Dataset 287	/data/dataset287	Dataset 288	/data/dataset288	Dataset 289	/data/dataset289	Dataset 290	/data/dataset290	Dataset 291	/data/dataset291	Dataset 292	/data/dataset292	Dataset 293	/data/dataset293	Dataset 294	/data/dataset294
Dataset 295	/data/dataset295	Dataset 296	/data/dataset296	Dataset 297	/data/dataset297	Dataset 298	/data/dataset298	Dataset 299	/data/dataset299	Dataset 300	/data/dataset300	Dataset 301	/data/dataset301	Dataset 302	/data/dataset302	Dataset 303	/data/dataset303	Dataset 304	/data/dataset304	Dataset 305	/data/dataset305	Dataset 306	/data/dataset306	Dataset 307	/data/dataset307	Dataset 308	/data/dataset308
Dataset 309	/data/dataset309	Dataset 310	/data/dataset310	Dataset 311	/data/dataset311	Dataset 312	/data/dataset312	Dataset 313	/data/dataset313	Dataset 314	/data/dataset314	Dataset 315	/data/dataset315	Dataset 316	/data/dataset316	Dataset 317	/data/dataset317	Dataset 318	/data/dataset318	Dataset 319	/data/dataset319	Dataset 320	/data/dataset320	Dataset 321	/data/dataset321	Dataset 322	/data/dataset322
Dataset 323	/data/dataset323	Dataset 324	/data/dataset324	Dataset 325	/data/dataset325	Dataset 326	/data/dataset326	Dataset 327	/data/dataset327	Dataset 328	/data/dataset328	Dataset 329	/data/dataset329	Dataset 330	/data/dataset330	Dataset 331	/data/dataset331	Dataset 332	/data/dataset332	Dataset 333	/data/dataset333	Dataset 334	/data/dataset334	Dataset 335	/data/dataset335	Dataset 336	/data/dataset336
Dataset 337	/data/dataset337	Dataset 338	/data/dataset338	Dataset 339	/data/dataset339	Dataset 340	/data/dataset340	Dataset 341	/data/dataset341	Dataset 342	/data/dataset342	Dataset 343	/data/dataset343	Dataset 344	/data/dataset344	Dataset 345	/data/dataset345	Dataset 346	/data/dataset346	Dataset 347	/data/dataset347	Dataset 348	/data/dataset348	Dataset 349	/data/dataset349	Dataset 350	/data/dataset350
Dataset 351	/data/dataset351	Dataset 352	/data/dataset352	Dataset 353	/data/dataset353	Dataset 354	/data/dataset354	Dataset 355	/data/dataset355	Dataset 356	/data/dataset356	Dataset 357	/data/dataset357	Dataset 358	/data/dataset358	Dataset 359	/data/dataset359	Dataset 360	/data/dataset360	Dataset 361	/data/dataset361	Dataset 362	/data/dataset362	Dataset 363	/data/dataset363	Dataset 364	/data/dataset364
Dataset 365	/data/dataset365	Dataset 366	/data/dataset366	Dataset 367	/data/dataset367	Dataset 368	/data/dataset368	Dataset 369	/data/dataset369	Dataset 370	/data/dataset370	Dataset 371	/data/dataset371	Dataset 372	/data/dataset372	Dataset 373	/data/dataset373	Dataset 374	/data/dataset374	Dataset 375	/data/dataset375	Dataset 376	/data/dataset376	Dataset 377	/data/dataset377	Dataset 378	/data/dataset378
Dataset 379	/data/dataset379	Dataset 380	/data/dataset380	Dataset 381	/data/dataset381	Dataset 382	/data/dataset382	Dataset 383	/data/dataset383	Dataset 384	/data/dataset384	Dataset 385	/data/dataset385	Dataset 386	/data/dataset386	Dataset 387	/data/dataset387	Dataset 388	/data/dataset388	Dataset 389	/data/dataset389	Dataset 390	/data/dataset390	Dataset 391	/data/dataset391	Dataset 392	/data/dataset392
Dataset 393	/data/dataset393	Dataset 394	/data/dataset394	Dataset 395	/data/dataset395	Dataset 396	/data/dataset396	Dataset 397	/data/dataset397	Dataset 398	/data/dataset398	Dataset 399	/data/dataset399	Dataset 400	/data/dataset400	Dataset 401	/data/dataset401	Dataset 402	/data/dataset402	Dataset 403	/data/dataset403	Dataset 404	/data/dataset404	Dataset 405	/data/dataset405	Dataset 406	/data/dataset406
Dataset 407	/data/dataset407	Dataset 408	/data/dataset408	Dataset 409	/data/dataset409	Dataset 410	/data/dataset410	Dataset 411	/data/dataset411	Dataset 412	/data/dataset412	Dataset 413	/data/dataset413	Dataset 414	/data/dataset414	Dataset 415	/data/dataset415	Dataset 416	/data/dataset416	Dataset 417	/data/dataset417	Dataset 418	/data/dataset418	Dataset 419	/data/dataset419	Dataset 420	/data/dataset420
Dataset 421	/data/dataset421	Dataset 422	/data/dataset422	Dataset 423	/data/dataset423	Dataset 424	/data/dataset424	Dataset 425	/data/dataset425	Dataset 426	/data/dataset426	Dataset 427	/data/dataset427	Dataset 428	/data/dataset428	Dataset 429	/data/dataset429	Dataset 430	/data/dataset430	Dataset 431	/data/dataset431	Dataset 432	/data/dataset432	Dataset 433	/data/dataset433	Dataset 434	/data/dataset434
Dataset 435	/data/dataset435	Dataset 436	/data/dataset436	Dataset 437	/data/dataset437	Dataset 438	/data/dataset438	Dataset 439	/data/dataset439	Dataset 440	/data/dataset440	Dataset 441	/data/dataset441	Dataset 442	/data/dataset442	Dataset 443	/data/dataset443	Dataset 444	/data/dataset444	Dataset 445	/data/dataset445	Dataset 446	/data/dataset446	Dataset 447	/data/dataset447	Dataset 448	/data/dataset448
Dataset 449	/data/dataset449	Dataset 450	/data/dataset450	Dataset 451	/data/dataset451	Dataset 452	/data/dataset452	Dataset 453	/data/dataset453	Dataset 454	/data/dataset454	Dataset 455	/data/dataset455	Dataset 456	/data/dataset456	Dataset 457	/data/dataset457	Dataset 458	/data/dataset458	Dataset 459	/data/dataset459	Dataset 460	/data/dataset460	Dataset 461	/data/dataset461	Dataset 462	/data/dataset462
Dataset 463	/data/dataset463	Dataset 464	/data/dataset464	Dataset 465	/data/dataset465	Dataset 466	/data/dataset466	Dataset 467	/data/dataset467	Dataset 468	/data/dataset468	Dataset 469	/data/dataset469	Dataset 470	/data/dataset470	Dataset 471	/data/dataset471	Dataset 472	/data/dataset472	Dataset 473	/data/dataset473	Dataset 474	/data/dataset474	Dataset 475	/data/dataset475	Dataset 476	/data/dataset476
Dataset 477	/data/dataset477	Dataset 478	/data/dataset478	Dataset 479	/data/dataset479	Dataset 480	/data/dataset480	Dataset 481	/data/dataset481	Dataset 482	/data/dataset482	Dataset 483	/data/dataset483	Dataset 484	/data/dataset484	Dataset 485	/data/dataset485	Dataset 486	/data/dataset486	Dataset 487	/data/dataset487	Dataset 488	/data/dataset488	Dataset 489	/data/dataset489	Dataset 490	/data/dataset490
Dataset 491	/data/dataset491	Dataset 492	/data/dataset492	Dataset 493	/data/dataset493	Dataset 494	/data/dataset494	Dataset 495	/data/dataset495	Dataset 496	/data/dataset496	Dataset 497	/data/dataset497	Dataset 498	/data/dataset498	Dataset 499	/data/dataset499	Dataset 500	/data/dataset500	Dataset 501	/data/dataset501	Dataset 502	/data/dataset502	Dataset 503	/data/dataset503	Dataset 504	/data/dataset504
Dataset 505	/data/dataset505	Dataset 506	/data/dataset506	Dataset 507	/data/dataset507	Dataset 508	/data/dataset508	Dataset 509	/data/dataset509	Dataset 510	/data/dataset510	Dataset 511	/data/dataset511	Dataset 512	/data/dataset512	Dataset 513	/data/dataset513	Dataset 514	/data/dataset514	Dataset 515	/data/dataset515	Dataset 516	/data/dataset516	Dataset 517	/data/dataset517	Dataset 518	/data/dataset518
Dataset 519	/data/dataset519	Dataset 520	/data/dataset520	Dataset 521	/data/dataset521	Dataset 522	/data/dataset522	Dataset 523	/data/dataset523	Dataset 524	/data/dataset524	Dataset 525	/data/dataset525	Dataset 526	/data/dataset526	Dataset 527	/data/dataset527	Dataset 528	/data/dataset528	Dataset 529	/data/dataset529	Dataset 530	/data/dataset530	Dataset 531	/data/dataset531	Dataset 532	/data/dataset532
Dataset 533	/data/dataset533	Dataset 534	/data/dataset534	Dataset 535	/data/dataset535	Dataset 536	/data/dataset536	Dataset 537	/data/dataset537	Dataset 538	/data/dataset538	Dataset 539	/data/dataset539	Dataset 540	/data/dataset540	Dataset 541	/data/dataset541	Dataset 542	/data/dataset542	Dataset 543	/data/dataset543	Dataset 544	/data/dataset544	Dataset 545	/data/dataset545	Dataset 546	/data/dataset546
Dataset 547	/data/dataset547	Dataset 548	/data/dataset548	Dataset 549	/data/dataset549	Dataset 550	/data/dataset550	Dataset 551	/data/dataset551	Dataset 552	/data/dataset552	Dataset 553	/data/dataset553	Dataset 554	/data/dataset554	Dataset 555	/data/dataset555	Dataset 556	/data/dataset556	Dataset 557	/data/dataset557	Dataset 558	/data/dataset558	Dataset 559	/data/dataset559	Dataset 560	/data/dataset560
Dataset 561	/data/dataset561	Dataset 562	/data/dataset562	Dataset 563	/data/dataset563	Dataset 564	/data/dataset564	Dataset 565	/data/dataset565	Dataset 566	/data/dataset566	Dataset 567	/data/dataset567	Dataset 568	/data/dataset568	Dataset 569	/data/dataset569	Dataset 570	/data/dataset570	Dataset 571	/data/dataset571	Dataset 572	/data/dataset572	Dataset 573	/data/dataset573	Dataset 574	/data/dataset574
Dataset 575	/data/dataset575																										

Do not use and submit this spreadsheet in place of Form GS-07. Follow the instructions for Form GS-07 to complete this spreadsheet. Add rows to this spreadsheet as needed. If you need to provide emissions information for more emissions units, add more sets of columns (3a through 3d) to this spreadsheet. Add rows as needed.

[illegible]

You may use and submit this spreadsheet in place of Form CD-27. Follow the instructions for Form CD-27 to complete this spreadsheet. This spreadsheet can be used for more than one unit. To add more units, add more rows to the table below. To add more columns, add more rows to the table below. To add more units, add more rows to the table below. To add more columns, add more rows to the table below.

2. Application is being submitted as a completed (C2) or Fresh drive, and the vehicle calibration spreadsheet(s) are included on the C2 or Fresh drive.

[illegible]

[illegible]

U. S. Steel Minntac - Title V Permit Renewal Application
Table 1 - PTE Summary

Emission Unit Number	TEMPO EQUI	Stack Vent Number	TEMPO STRU
EU001	EQUI 196	SV001	STRU 142
EU002	EQUI 197	SV002	STRU 143
EU003	EQUI 198	SV003	STRU 144
EU004	EQUI 199	SV004	STRU 145
EU005	EQUI 200	SV005	STRU 146
EU006	EQUI 688	SV006	STRU 147
EU008	EQUI 689	SV008	STRU 194
EU009	EQUI 690	SV009	STRU 148
EU010	EQUI 201	SV010	STRU 149
EU011	EQUI 202	SV011	STRU 150
EU012	EQUI 691	SV012	STRU 151
EU013	EQUI 47	SV013	STRU 152
EU015	EQUI 72	SV014	STRU 153
EU017	EQUI 48	SV015	STRU 154
EU022	EQUI 206	SV016	STRU 210
EU023	EQUI 207	SV016	STRU 210
EU024	EQUI 208	SV017	STRU 195
EU025	EQUI 374	SV017	STRU 195
EU026	EQUI 281	SV018	STRU 211
EU027	EQUI 375	SV018	STRU 211
EU028	EQUI 282	SV019	STRU 212
EU031	EQUI 317	SV020	STRU 213
EU032	EQUI 376	SV020	STRU 213
EU034	EQUI 318	SV021	STRU 214
EU035	EQUI 377	SV021	STRU 214
EU036	EQUI 319	SV022	STRU 196
EU037	EQUI 77	SV022	STRU 196
EU038	EQUI 78	SV022	STRU 196
EU039	EQUI 320	SV022	STRU 196
EU040	EQUI 51	SV023	STRU 215
EU041	EQUI 321	SV024	STRU 216
EU042	EQUI 378	SV024	STRU 216
EU043	EQUI 322	SV024	STRU 216
EU044	EQUI 379	SV024	STRU 216
EU045	EQUI 323	SV024	STRU 216
EU046	EQUI 380	SV024	STRU 216
EU047	EQUI 324	SV025	STRU 217
EU048	EQUI 325	SV026	STRU 218
EU049	EQUI 52	SV027	STRU 219
EU050	EQUI 53	SV028	STRU 179
EU051	EQUI 696	SV029	STRU 220
EU052	EQUI 326	SV030	STRU 92
EU053	EQUI 381	SV030	STRU 92
EU054	EQUI 327	SV031	STRU 93
EU055	EQUI 328	SV032	STRU 94
EU056	EQUI 382	SV033	STRU 95
EU057	EQUI 329	SV034	STRU 96
EU058	EQUI 383	SV035	STRU 97
EU059	EQUI 330	SV035	STRU 97
EU060	EQUI 384	SV035	STRU 97
EU061	EQUI 331	SV036	STRU 98
EU062	EQUI 385	SV036	STRU 98
EU063	EQUI 332	SV036	STRU 98
EU064	EQUI 333	SV036	STRU 98
EU069	EQUI 335	SV038	STRU 100
EU070	EQUI 388	SV039	STRU 101
EU071	EQUI 336	SV040	STRU 102
EU072	EQUI 389	SV041	STRU 222
EU073	EQUI 337	SV042	STRU 103
EU074	EQUI 338	SV043	STRU 104
EU075	EQUI 55	SV044	STRU 105
EU076	EQUI 56	SV045	STRU 106
EU077	EQUI 57	SV046	STRU 107
EU078	EQUI 58	SV047	STRU 108
EU079	EQUI 59	SV048	STRU 109
EU080	EQUI 60	SV049	STRU 110
EU081	EQUI 61	SV050	STRU 111
EU082	EQUI 62	SV051	STRU 112
EU083	EQUI 63	SV052	STRU 231
EU084	EQUI 64	SV053	STRU 232
EU093	EQUI 339	SV055	STRU 223
EU094	EQUI 390	SV056	STRU 234
EU095	EQUI 340	SV057	STRU 235
EU096	EQUI 341	SV058	STRU 178
EU097	EQUI 5	SV059	STRU 236
EU098	EQUI 342	SV060	STRU 180
EU099	EQUI 6	SV060	STRU 180
EU100	EQUI 343	SV060	STRU 180
EU101	EQUI 7	SV060	STRU 180
EU102	EQUI 392	SV061	STRU 237
EU103	EQUI 283	SV062	STRU 238
EU104	EQUI 8	SV063	STRU 181
EU105	EQUI 284	SV063	STRU 181
EU106	EQUI 9	SV064	STRU 239
EU107	EQUI 285	SV065	STRU 182
EU108	EQUI 286	SV066	STRU 240

U. S. Steel Minntac - Title V Permit Renewal Application
Table 1 - PTE Summary

Emission Unit Number	TEMPO EQUI	Stack Vent Number	TEMPO STRU
EU109	EQUI 10	SV067	STRU 183
EU110	EQUI 287	SV068	STRU 241
EU111	EQUI 11	SV069	STRU 184
EU112	EQUI 288	SV070	STRU 242
EU113	EQUI 289	SV070	STRU 242
EU114	EQUI 12	SV071	STRU 243
EU115	EQUI 290	SV071	STRU 243
EU116	EQUI 13	SV072	STRU 185
EU117	EQUI 291	SV072	STRU 185
EU118	EQUI 14	SV072	STRU 185
EU119	EQUI 292	SV072	STRU 185
EU120	EQUI 15	SV072	STRU 185
EU121	EQUI 293	SV072	STRU 185
EU128	EQUI 297	SV073	STRU 244
EU129	EQUI 298	SV074	STRU 186
EU130	EQUI 299	SV075	STRU 245
EU131	EQUI 300	SV076	STRU 187
EU132	EQUI 301	SV077	STRU 246
EU405	EQUI 674	SV078	STRU 224
EU134	EQUI 303	SV079	STRU 188
EU406	EQUI 675	SV080	STRU 247
EU136	EQUI 305	SV081	STRU 189
EU135	EQUI 304	SV082	STRU 248
EU402	EQUI 673	SV083	STRU 190
EU395	EQUI 704	SV084	STRU 249
EU140	EQUI 309	SV085	STRU 191
EU141	EQUI 310	SV085	STRU 191
EU142	EQUI 311	SV086	STRU 250
EU143	EQUI 312	SV086	STRU 250
EU144	EQUI 313	SV087	STRU 251
EU145	EQUI 314	SV087	STRU 251
EU146	EQUI 393	SV087	STRU 251
EU147	EQUI 394	SV087	STRU 251
EU148	EQUI 209	SV088	STRU 192
EU149	EQUI 210	SV088	STRU 192
EU150	EQUI 211	SV088	STRU 192
EU151	EQUI 212	SV088	STRU 192
EU152	EQUI 213	SV088	STRU 192
EU153	EQUI 214	SV088	STRU 192
EU154	EQUI 215	SV088	STRU 192
EU155	EQUI 216	SV089	STRU 114
EU156	EQUI 217	SV089	STRU 114
EU157	EQUI 218	SV089	STRU 114
EU158	EQUI 219	SV089	STRU 114
EU159	EQUI 220	SV089	STRU 114
EU160	EQUI 19	SV089	STRU 114
EU161	EQUI 221	SV089	STRU 114
EU162	EQUI 20	SV090	STRU 193
EU163	EQUI 222	SV090	STRU 193
EU164	EQUI 223	SV090	STRU 193
EU165	EQUI 21	SV090	STRU 193
EU166	EQUI 224	SV090	STRU 193
EU167	EQUI 225	SV090	STRU 193
EU168	EQUI 22	SV090	STRU 193
EU169	EQUI 226	SV091	STRU 115
EU170	EQUI 227	SV091	STRU 115
EU171	EQUI 23	SV091	STRU 115
EU172	EQUI 228	SV091	STRU 115
EU173	EQUI 229	SV091	STRU 115
EU174	EQUI 24	SV091	STRU 115
EU175	EQUI 230	SV091	STRU 115
EU176	EQUI 231	SV092	STRU 116
EU177	EQUI 25	SV092	STRU 116
EU178	EQUI 232	SV092	STRU 116
EU179	EQUI 26	SV092	STRU 116
EU180	EQUI 233	SV092	STRU 116
EU181	EQUI 234	SV092	STRU 116
EU182	EQUI 170	SV092	STRU 116
EU183	EQUI 235	SV093	STRU 197
EU184	EQUI 236	SV093	STRU 197
EU185	EQUI 171	SV093	STRU 197
EU186	EQUI 237	SV093	STRU 197
EU187	EQUI 238	SV093	STRU 197
EU188	EQUI 172	SV093	STRU 197
EU189	EQUI 239	SV093	STRU 197
EU190	EQUI 173	SV094	STRU 117
EU191	EQUI 240	SV094	STRU 117
EU192	EQUI 241	SV094	STRU 117
EU193	EQUI 395	SV094	STRU 117
EU194	EQUI 242	SV095	STRU 198
EU195	EQUI 174	SV095	STRU 198
EU196	EQUI 243	SV095	STRU 198
EU197	EQUI 244	SV095	STRU 198
EU198	EQUI 136	SV095	STRU 198

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Table 1 - PTE Summary

Emission Unit Number	TEMPO EQUI	Stack Vent Number	TEMPO STRU
EU199	EQUI 245	SV095	STRU 198
EU200	EQUI 246	SV095	STRU 198
EU201	EQUI 137	SV096	STRU 118
EU202	EQUI 247	SV096	STRU 118
EU203	EQUI 138	SV096	STRU 118
EU204	EQUI 248	SV096	STRU 118
EU205	EQUI 249	SV096	STRU 118
EU206	EQUI 139	SV096	STRU 118
EU207	EQUI 250	SV096	STRU 118
EU208	EQUI 251	SV097	STRU 199
EU209	EQUI 140	SV097	STRU 199
EU210	EQUI 252	SV097	STRU 199
EU211	EQUI 253	SV097	STRU 199
EU212	EQUI 141	SV097	STRU 199
EU213	EQUI 254	SV097	STRU 199
EU214	EQUI 142	SV097	STRU 199
EU216	EQUI 274	SV099	STRU 229
EU217	EQUI 143	SV100	
EU218	EQUI 345	SV100	
EU219	EQUI 346	SV100	
EU220	EQUI 144	SV100	
EU221	EQUI 347	SV101	STRU 120
EU222	EQUI 348	SV102	STRU 201
EU225	EQUI 146	SV103	STRU 225
EU227	EQUI 350	SV104	STRU 121
EU228	EQUI 147	SV105	STRU 202
EU229	EQUI 351	SV106	STRU 122
EU230	EQUI 148	SV107	STRU 203
EU231	EQUI 352	SV107	STRU 203
EU232	EQUI 149	SV108	STRU 123
EU233	EQUI 353	SV108	STRU 123
EU234	EQUI 354	SV109	STRU 204
EU235	EQUI 150	SV109	STRU 204
EU236	EQUI 355	SV110	
EU237	EQUI 151	SV110	
EU238	EQUI 356	SV110	
EU239	EQUI 152	SV111	
EU240	EQUI 357	SV111	
EU241	EQUI 358	SV111	
EU242	EQUI 153	SV111	
EU243	EQUI 359	SV112	STRU 125
EU244	EQUI 154	SV113	
EU245	EQUI 360	SV113	
EU246	EQUI 361	SV113	
EU247	EQUI 155	SV114	
EU248	EQUI 362	SV114	
EU249	EQUI 156	SV114	
EU250	EQUI 363	SV114	
EU251	EQUI 364	SV114	
EU252	EQUI 157	SV115	
EU253	EQUI 365	SV115	
EU254	EQUI 158	SV115	
EU255	EQUI 366	SV115	
EU256	EQUI 367	SV115	
EU257	EQUI 159	SV116	STRU 127
EU258	EQUI 368	SV117	STRU 128
EU261	EQUI 279	SV118	STRU 208
EU263	EQUI 370	SV119	STRU 129
EU264	EQUI 79	SV120	STRU 209
EU265	EQUI 371	SV121	STRU 130
EU266	EQUI 372	SV122	STRU 230
EU267	EQUI 315	SV122	STRU 230
EU399	EQUI 46	SV122	STRU 230
EU268	EQUI 316	SV123	
EU269	EQUI 27	SV123	
EU270	EQUI 28	SV123	
EU271	EQUI 29	SV123	
EU272	EQUI 30	SV123	
EU273	EQUI 31	SV124	
EU274	EQUI 32	SV124	
EU275	EQUI 33	SV124	
EU276	EQUI 34	SV124	
EU277	EQUI 35	SV124	
EU278	EQUI 36	SV125	STRU 221
EU279	EQUI 37	SV126	STRU 226
EU282	EQUI 280	SV127	STRU 60
EU284	EQUI 41	SV128	STRU 133
EU285	EQUI 272	SV129	STRU 61
EU286	EQUI 42	SV130	STRU 134
EU285	EQUI 272	SV131	STRU 256
EU287	EQUI 81	SV131	STRU 256
EU288	EQUI 82	SV131	STRU 256
EU400	EQUI 273	SV131	STRU 256

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Table 1 - PTE Summary

Emission Unit Number	TEMPO EQUI	Stack Vent Number	TEMPO STRU
EU414	EQUI 697	SV132	STRU 264
EU415	EQUI 698	SV133	STRU 265
EU416	EQUI 699	SV134	STRU 266
EU417	EQUI 700	SV135	STRU 267
EU418	EQUI 701	SV136	STRU 268
EU419	EQUI 702	SV137	STRU 269
EU295	EQUI 164	SV138	STRU 64
EU296	EQUI 87	SV138	STRU 64
EU297	EQUI 165	SV139	STRU 139
EU298	EQUI 88	SV139	STRU 139
EU299	EQUI 89	SV139	STRU 139
EU300	EQUI 278	SV139	STRU 139
EU301	EQUI 90	SV140	
EU302	EQUI 166	SV140	
EU303	EQUI 91	SV140	
EU304	EQUI 92	SV140	
EU305	EQUI 167	SV140	
EU306	EQUI 93	SV141	
EU307	EQUI 94	SV141	
EU308	EQUI 168	SV141	
EU309	EQUI 95	SV141	
EU310	EQUI 269	SV141	
EU311	EQUI 96	SV142	STRU 141
EU312	EQUI 97	SV143	STRU 66
EU315	EQUI 3	SV144	STRU 155
EU318	EQUI 119	SV146	STRU 67
EU319	EQUI 120	SV146	STRU 67
EU320	EQUI 98	SV147	
EU321	EQUI 169	SV147	
EU322	EQUI 99	SV147	
EU323	EQUI 175	SV147	
EU324	EQUI 100	SV147	
EU325	EQUI 101	SV148	
EU326	EQUI 176	SV148	
EU327	EQUI 102	SV148	
EU328	EQUI 103	SV148	
EU329	EQUI 177	SV148	
EU330	EQUI 104	SV149	STRU 157
EU331	EQUI 178	SV150	STRU 227
EU334	EQUI 179	SV151	STRU 69
EU337	EQUI 122	SV153	STRU 70
EU338	EQUI 123	SV153	STRU 70
EU339	EQUI 270	SV154	STRU 158
EU340	EQUI 108	SV155	STRU 71
EU341	EQUI 180	SV156	STRU 159
EU342	EQUI 109	SV157	STRU 72
EU343	EQUI 110	SV158	STRU 160
EU344	EQUI 181	SV159	STRU 161
EU345	EQUI 111	SV160	STRU 73
EU346	EQUI 182	SV161	STRU 162
EU347	EQUI 112	SV162	STRU 74
EU348	EQUI 183	SV163	STRU 163
EU349	EQUI 113	SV164	STRU 75
EU350	EQUI 114	SV165	STRU 164
EU351	EQUI 184	SV166	STRU 76
EU352	EQUI 115	SV167	STRU 165
EU353	EQUI 185	SV167	STRU 77
EU354	EQUI 116	SV169	STRU 166
EU355	EQUI 186	SV170	STRU 78
EU356	EQUI 117	SV171	STRU 167
EU357	EQUI 187	SV172	STRU 79
EU358	EQUI 118	SV173	STRU 168
EU359	EQUI 124	SV174	STRU 80
EU360	EQUI 188	SV175	STRU 228
EU361	EQUI 125	SV176	STRU 81
EU362	EQUI 189	SV177	STRU 169
EU363	EQUI 126	SV178	STRU 82
EU364	EQUI 190	SV178	STRU 82
EU365	EQUI 191	SV179	STRU 170
EU366	EQUI 127	SV180	STRU 83
EU383	EQUI 692	SV183	STRU 172
EU384	EQUI 693	SV184	STRU 85
EU385	EQUI 694	SV185	STRU 173
EU386	EQUI 695	SV186	STRU 174
EU389	EQUI 373	SV189	STRU 175
EU390	EQUI 712	SV190	STRU 176
EU300	EQUI 278	SV193	STRU 113
EU393	EQUI 705	SV194	STRU 253
EU394	EQUI 275	SV194	STRU 253
EU396	EQUI 266	SV195	STRU 259
EU397	EQUI 267	SV196	STRU 254
EU398	EQUI 268	SV197	STRU 255
EU401	EQUI 255	SV198	STRU 252
EU420	EQUI 676	SV208	STRU 263
EU404	EQUI 671	SV098	STRU 119
EU407	EQUI 678		

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Table 1 - PTE Summary

Emission Unit Number	TEMPO EQUI	Stack Vent Number	TEMPO STRU
EU408	EQUI 679		
EU409	EQUI 680		
EU410	EQUI 681		
EU411	EQUI 682		
EU412	EQUI 683		
EU421	EQUI 684	SV181	STRU 171
EU422	EQUI 685	SV182	STRU 84
EU413	EQUI 672	SV201	STRU 262
	EQUI 703		STRU 270
	EQUI 706		STRU 229
FS001	FUGI 6		
FS002	FUGI 8		
FS003	FUGI 20		
FS005	FUGI 18		
FS006	FUGI 11		
FS007	FUGI 29		
FS008	FUGI 22		
FS009	FUGI 5		
FS010	FUGI 4		
FS011	FUGI 25		
FS012	FUGI 3		
FS013	FUGI 27		
FS014	FUGI 24		
FS015	FUGI 1		
FS016	FUGI 10		
FS017	FUGI 14		
FS018	FUGI 37		
FS021	FUGI 15		
FS022	FUGI 23		
FS023	FUGI 17		
FS024	FUGI 28		
FS026	FUGI 12		
FS027	FUGI 19		
FS028	FUGI 21		
FS030	FUGI 16		
	FUGI 36		
EU065	EQUI 386	SV038/ SV039	STRU 100/ STRU 101
EU066	EQUI 334	SV040/ SV041	STRU 102/ STRU 222
EU067	EQUI 387	SV042/ SV043	STRU 103/ STRU 104
EU068	EQUI 54	SV044/ SV045	STRU 105/ STRU 106
EU085	EQUI 65	SV046/ SV047	STRU 107/ STRU 108
EU086	EQUI 66	SV048/ SV049	STRU 109/ STRU 110
EU087	EQUI 67	SV050/ SV051	STRU 111/ STRU 112
EU088	EQUI 68	SV052/ SV053	STRU 231/ STRU 232
	COMG 37		

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			Controlled PTE (tpy)																																				
Control Equip. Number	TEMPO TREA	Description	PM	PM ₁₀	PM _{2.5}	NO _x	SO _x	VOC	CO	Lead	Benzene	Ethylbenzene	Toluene	2-Butoxyethanol	Xylene	Hexane	Formaldehyde	1,3-Butadiene	Acetaldehyde	Acrolein	Naphthalene	Arsenic	Beryllium	Cadmium	Chromium	Cobalt	Manganese	Mercury	Nickel	Selenium	POM	CO2	N2O	CH4	CO2e	Acenaphthene	Acenaphthylene		
FS030		Return Screen Conveyor HPGR2	0.48	0.157	0.04																																		
FS030		Diverter Conveyor HPGR3	0.85	0.281	0.08																																		
FS030		Grinder Conveyor (in) HPGR 4	0.85	0.281	0.08																																		
FS030		HPGR Grinding Operation	7.33	3.297	0.61																																		
FS030		Grinder Conveyor (out) HPGR 5	0.85	0.281	0.08																																		
CE139		Coal Unloading Hopper	0.16	0.08	0.02																																		
CE140		Coal Day Bin/Conveyor Transfer	0.16	0.08	0.02																																		
		50 kW Emergency Generator	0.01	0.01	0.01	0.14	0.00	0.14	0.05		0.000		0.0000		0.000		0.000	0.000	0.000	0.000	0.000											19.132	0.000	0.001	19.361				
		200 kW Emergency Generator	0.02	0.02	0.02	0.41	0.00	0.41	0.14		0.000		0.0002		0.000		0.001		0.000	0.000	0.000											76.529	0.001	0.004	76.809	0.000	0.000		
		500 kW Emergency Generator	0.01	0.01	0.01	1.69	0.00	0.01	0.23		0.001		0.0005		0.000		0.001		0.001	0.000	0.000											191.323	0.002	0.010	192.023	0.000	0.000		
		Overburden to Truck, Overburden to Stockpile	10.57	5.00	0.76																																		
		Crude Ore Hauling, Waste Material Hauling, Coal Delivery Traffic	4,246.78	1,124.10	112.41																																		
		Small Truck Traffic	347.40	194.40	14.03																																		
		Blasting	0.02	0.01	0.00	402.26	47.33		1,585.39																								12,083.81	0.10	0.49	12,125.28			
		East Pit	0.21	0.10	0.01																																		
		West Pit	0.44	0.21	0.03																																		
		East Pit	0.13	0.06	0.01																																		
		West Pit	0.21	0.10	0.02																																		
		East Pit	0.15	0.07	0.01																																		
		West Pit	0.20	0.10	0.01																																		
		Coarse Tailings 3	6.35	3.17	0.48																																		
		Scrap Rod	0.01	0.01	0.00																																		
		Feed	0.96	0.47	0.07																																		
		Screened Pellets	0.00E+00	0.00E+00	0.00E+00																																		
		Group 13 Fines	0.31	0.15	0.02																																		
		Steps 1/2	1.49	0.70	0.11																																		
		Steps 3	0.85	0.40	0.06																																		
		Step 1, 2, & 3	4.05	1.96	0.30																																		
		Main - Steps 1/2	54.44	25.76	3.90																																		
		Auxiliary - Steps 1/2	2.44	1.15	0.17																																		
		Step 3	46.81	22.19	3.36																																		
		Waste Rock Pile	14.87	7.03	1.06																																		
		Step I/II Crude Ore Stock Pile Temp 72	3.28	1.55	0.23																																		
		Step III Crude Ore Stock Pile Temp 74	3.28	1.55	0.23																																		
		Tailings Basin 3	10,168.65	5,084.42	762.63																																		
		Contractor Activities	73.22	34.57	5.28																																		
CE154/ CE155	TREA 194/ TREA 195	Tertiary Crusher L1/L2 Storage Bin 1	0.78	0.78	0.45																																		
CE156/ CE157	TREA 196/ TREA 197	Tertiary Crusher L3/L4 Storage Bin 2	0.78	0.78	0.45																																		
CE158/ CE159	TREA 198/ TREA 199	Tertiary Crusher L5/L6 Storage Bin 3	0.78	0.78	0.45																																		

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Un-Controlled PTE (tpy)																																			
Chloroacetophenone (2-)	Chlorobenzene	Chloroform	Cumene	Cyanide	Dimethyl sulfate	Dinitrotoluene 2,4	Ethylchloride	Ethylene dibromide	Ethylene dichloride	Hydrogen Chloride	Hydrogen Fluoride	Isophorone	Magnesium Compounds	Methyl bromide	Methyl chloride	Methyl chrysene 5	Methyl ethyl ketone	Methyl hydrazine	Methyl methacrylate	Methyl tert butyl ether	Methylene chloride	Phenol	Propionaldehyde	Styrene	Tetrachloroethylene	Trichloroethane, 1,1,1	Vinyl acetate	Total HAPs	PM	PM ₁₀	PM _{2.5}	NO _x	SO _x	VOC	CO
																													158.31	135.309	48.236				
																													156.81	134.020	47.777				
																													67.85	58.077	20.760				
																													49.00	41.944	14.993				
																													49.00	41.944	14.993				
																													49.00	41.944	14.993				
																													49.00	41.944	14.993				
																													21.11	18.068	6.459				
																													21.11	18.068	6.459				
																													21.11	18.068	6.459				
																													21.11	18.068	6.459				
																													21.11	18.068	6.459				
																													21.11	18.068	6.459				
																													158.31	135.472	48.399				
																													158.31	135.472	48.399				
																													158.31	135.472	48.399				
																													158.31	135.472	48.399				
																													158.31	135.472	48.399				
																													158.31	135.472	48.399				
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																													158.31	135.472	48.399				
																													158.31	135.472	48.399				
																													158.31	135.472	48.399				
																													158.31	135.472	48.399				
																													158.31	135.472	48.399				
																													158.31	135.472	48.399				
												</																							

Un-Controlled PTE (tpy)																																				
Chloroacetophenone (2-)	Chlorobenzene	Chloroform	Cumene	Cyanide	Dimethyl sulfate	Dinitrotoluene 2,4	Ethylchloride	Ethylene dibromide	Ethylene dichloride	Hydrogen Chloride	Hydrogen Fluoride	Isophorone	Magnesium Compounds	Methyl bromide	Methyl chloride	Methyl chrysene 5	Methyl ethyl ketone	Methyl hydrazine	Methyl methacrylate	Methyl tert butyl ether	Methylene chloride	Phenol	Propionaldehyde	Styrene	Tetrachloroethylene	Trichloroethane, 1,1,1	Vinyl acetate	Total HAPs	PM	PM ₁₀	PM _{2.5}	NO _x	SO _x	VOC	CO	
																													491.25	417.859	147.671					
																													491.25	417.859	147.671					
																													25.62	21.892	7.803					
																													25.62	21.892	7.803					
																													25.62	21.892	7.803					
																													25.62	21.892	7.803					
																													25.62	21.892	7.803					
																													64.12	54.798	19.532					
																													64.12	54.798	19.532					
																													196.26	166.936	58.995					
																													196.26	166.936	58.995					
																													196.26	166.936	58.995					
																													196.26	166.936	58.995					
																													196.26	166.936	58.995					
																													491.25	417.859	147.671					
																													491.25	417.859	147.671					
																												0.0026	0.10	0.09	0.09	4.82	0.00	0.12	1.28	
																													71.90	61.373	21.828					
																													71.90	61.373	21.828					
																													71.90	61.373	21.828					
																													90.46	77.462	27.706					
																													133.29	71.255	24.604					
										1.766	0.061															0.001		3.734	6,878.51	2,476.01	1,251.64	2,735.75	894.77	26.06	101.22	
																													188.34	111.046	45.127					
																													144.74	124.012	44.403					
																													90.46	77.462	27.706					
																													4.94	2.861	1.133					
																													4.94	2.861	1.133					
																													45.23	38.718	13.840					
																													45.23	38.718	13.840					
																													45.23	38.718	13.840					
																													45.23	38.718	13.840					
																													7.03	6.324	2.455					
																													7.03	6.324	2.455					
																													7.03	6.324	2.455					
																													2.35	2.038	0.743					
																													2.35	2.038	0.743					
																													2.35	2.038	0.743					
																													2.35	2.038	0.743					
																													121.29	104.225	37.515					
																													13.10	11.205	4.000					
																													13.10	11.205	4.000					
																													13.10	11.205	4.000					

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Un-Controlled PTE (tpy)																																			
Chloroacetophenone (2-)	Chlorobenzene	Chloroform	Cumene	Cyanide	Dimethyl sulfate	Dinitrotoluene 2,4	Ethylchloride	Ethylene dibromide	Ethylene dichloride	Hydrogen Chloride	Hydrogen Fluoride	Isophorone	Magnesium Compounds	Methyl bromide	Methyl chloride	Methyl chrysene 5	Methyl ethyl ketone	Methyl hydrazine	Methyl methacrylate	Methyl tert butyl ether	Methylene chloride	Phenol	Propionaldehyde	Styrene	Tetrachloroethylene	Trichloroethane, 1,1,1	Vinyl acetate	Total HAPs	PM	PM ₁₀	PM _{2.5}	NO _x	SO _x	VOC	CO
																													0.48	0.157	0.044				
																													0.85	0.281	0.079				
																													0.85	0.281	0.079				
																													7.33	3.297	0.611				
																													0.85	0.281	0.079				
																													30.00	14.188	2.148				
																													30.00	14.188	2.148				
																												0.00045	0.01	0.010	0.010	0.141	0.000	0.141	0.045
																												0.002	0.02	0.020	0.020	0.406	0.001	0.406	0.142
																												0.004	0.01	0.011	0.011	1.691	0.002	0.008	0.231
																													10.57	5.00	0.76				
																													42,461.82	11,239.40	1,123.94				
																													3,474.00	1,944.00	140.34				
																													0.02	0.01	0.00	402.26	47.33		1,585.39
																													0.21	0.10	0.01				
																													0.44	0.21	0.03				
																													0.13	0.06	0.01				
																													0.21	0.10	0.02				
																													0.15	0.07	0.01				
																													0.20	0.10	0.01				
																													6.35	3.17	0.48				
																													0.01	0.01	0.00				
																													0.96	0.47	0.07				
																													0.00	0.00	0.00				
																													0.31	0.15	0.02				
																													1.49	0.70	0.11				
																													0.85	0.40	0.06				
																													4.05	1.96	0.30				
																													54.44	25.76	3.90				
																													2.44	1.15	0.17				
																													46.81	22.19	3.36				
																													14.87	7.03	1.06				
																													3.28	1.55	0.23				
																													3.28	1.55	0.23				
																													10,168.65	5,084.42	762.63				
																													73.22	34.57	5.28				
																													120.14	102.21	36.13				
																													120.14	102.21	36.13				
																													120.14	102.21	36.13				
																													120.14	102.21	36.13				
																													120.14	102.21	36.13				
																													120.14	102.21	36.13				
																													120.14	102.21	36.13				
																													120.14	102.21	36.13				
0.00	0.00	0.01	0.00	0.33	0.01	0.00	0.01	0.00	0.01	15.06	19.53	0.08	1.47	0.02	0.07	0.00	0.05	0.02	0.00	0.00	0.04	0.00	0.05	0.00	0.01	0.01	0.00	240.36	167,054.44	87,876.66	28,366.49	13,887.60	5,884.70	432.49	2,931.55

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															Controlled PTE (lb/hr)																																				
Magnesium Compounds	Methyl bromide	Methyl chloride	Methyl chrysene 5	Methyl ethyl ketone	Methyl hydrazine	Methyl methacrylate	Methyl tert butyl ether	Methylene chloride	Phenol	Propionaldehyde	Styrene	Tetrachloroethylene	Trichloroethane, 1,1,1	Vinyl acetate	PM	PM ₁₀	PM _{2.5}	NO _x	SO _x	VOC	CO	Lead	Benzene	Ethylbenzene	Toluene	2-Butoxyethanol	Xylene	Hexane	Formaldehyde	1,3-Butadiene	Acetaldehyde	Acrolein	Naphthalene	Arsenic	Beryllium	Cadmium	Chromium	Cobalt	Manganese	Mercury											
															0.11	0.04	0.01																																		
															0.20	0.06	0.02																																		
															0.20	0.06	0.02																																		
															1.67	0.75	0.14																																		
															0.20	0.06	0.02																																		
															0.04	0.02	0.00																																		
															0.04	0.02	0.00																																		
															0.04	0.04	0.04	0.563	0.001	0.563	0.181			0.000		0.000		0.000		0.001	0.000	0.000	0.000	0.000																	
															0.08	0.08	0.08	1.622	0.003	1.622	0.570			0.002		0.001		0.001		0.002		0.001	0.000	0.000																	
															0.04	0.04	0.04	6.763	0.008	0.033	0.924			0.004		0.002		0.001		0.006		0.004	0.000	0.000																	
															11.70	5.53	0.84																																		
															1,939.02	513.25	51.32																																		
															158.63	88.77	6.41																																		
															0.21	0.11	0.01	91.84	10.80		361.96																														
															0.23	0.11	0.02																																		
															0.49	0.23	0.04																																		
															0.15	0.07	0.01																																		
															0.23	0.11	0.02																																		
															0.17	0.08	0.01																																		
															0.23	0.11	0.02																																		
															1.45	0.72	0.11																																		
															0.01	0.01	0.00																																		
															0.43	0.21	0.03																																		
															0.00	0.00	0.00																																		
															0.34	0.16	0.02																																		
															1.65	0.78	0.12																																		
															0.94	0.44	0.07																																		
															3.10	1.47	0.22																																		
															59.82	28.30	4.28																																		
															2.70	1.28	0.19																																		
															50.11	23.71	3.59																																		
															16.46	7.78	1.18																																		
															3.63	1.72	0.26																																		
															3.63	1.72	0.26																																		
															2,321.61	1,160.83	174.12																																		
															16.72	7.89	1.20																																		
															0.18	0.18	0.10																																		
															0.18	0.18	0.10																																		
															0.18	0.18	0.10																																		
															0.18	0.18	0.10																																		
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															0.18	0.18	0.10																																		
															0.18	0.18	0.10																																		
															0.18	0.18	0.10																																		
															0.18	0.18	0.10																																		

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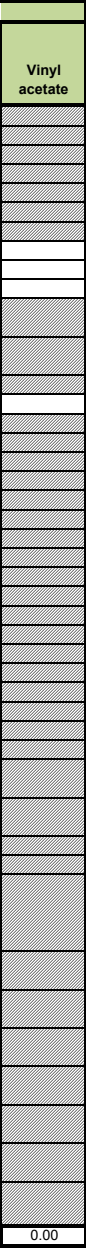
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Vinyl acetate

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[illegible]



																														Uncontrolled Filterable Particle Size Distribution (Mass %)										Control Efficiencies (%) by Particle Size										Mass Based Filterable PM ₁₀ by Size Class			Units are same as PM-FIL and PM-COND EF						PM-COND CATEGORY (RSPB)		PM-COND EF		Uncontrolled Total PM ₁₀ -Cond Eff		Controlled Total PM ₁₀ -Cond Eff		Mass Based Total PM ₁₀ -Cond Eff		PM				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5				PM10				PM2.5			

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control equipment exhaust is filtered to a HEPA filter before venting inside building

Emission Sources and Process Data										Uncontrolled Filterable Particle Size Distribution (Mass %)										Control Efficiencies (%) by Particle Size										Mass Based Filterable CE % by Size										Units are same as PM-FIL and PM-COND EF										PM-COND (Reference Category: PM102.5 EF)										PM-COND EF										Uncontrolled Total PM102.5 EF										Controlled Total PM102.5 EF										Mass Based Total PM102.5 CE %										PM										PM10										PM2.5										PM2.5										PMCOND																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
Station	Unit	CE	Tempo	Emission	Tempo	MAC77	Brief Description	Throughput	Units	Process Rate	Units	Controlled PM-FIL EF	Uncontrolled PM-FIL EF	PM-FIL EF	Ref	Category	PM 0 - 2.5	PM 2.5 - 6.0	PM 6.0 - 10	PM 10+	Ref	Control Technology	PM 0 - 2.5	PM 2.5 - 6.0	PM 6.0 - 10	PM 10+	Ref	PM	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5	PM1

[illegible]

Minn. R. 7011.0715 (IPER) Compliance

All units in the table below are those without control equipment. Units with control equipment are not listed because they meet IPER by complying with Minn. R. 7011.0715, subp. 3
Units without a stack listed vent indoors and were evaluated on only process weight based limit.

Subject Item	Stack SI ID	Stack/ Vent Desig.	Airflow (ASCFM)	Exit Gas Temp (°F)	Airflow (DSCFM)	process weight ton/hr	Process Weight Rate (lb/hr)	Emission Rate (lb/hr) {Minn. R. 7011.0730 (Table 1)}	Allowable grain loading (gr/dscf) {Minn. R. 7011.0735 (Table 2)}	Applicable Emission Limit based on airflow (lb/hr)	Less Stringent PM Limit (lb/hr)	Less Stringent PM Limit (gr/dscf)	Stack emissions tpy	*Stack Emissions PM lb/hr	PTE Calcs Demonstrate Compliance?
EQUI 350	STRU 121		130000	920	49,739		650000	43.672	0.0530	22.58	43.67	0.1024	188.34	43.00	YES
EQUI 370	STRU 129		182000	580	92,400		1210000	48.237	0.0433	34.32	48.24	0.0609	201.48	46.00	YES
EQUI 41	STRU 133		182000	580	92,400		1210000	48.237	0.0433	34.32	48.24	0.0609	201.48	46.00	YES
EQUI 267	STRU 254		182000	580	92,400		1210000	48.237	0.0433	34.32	48.24	0.0609	201.48	46.00	YES
EQUI 268	STRU 255		182000	580	102,400		1210000	48.237	0.0419	36.79	48.24	0.0550	201.48	46.00	YES
EQUI 678					0	1,394	2788000	55.129	0.1000	0.00	55.13		0.38	0.09	YES
EQUI 679					0	1,394	2788000	55.129	0.1000	0.00	55.13		0.48	0.11	YES
EQUI 680					0	1,394	2788000	55.129	0.1000	0.00	55.13		0.85	0.20	YES
EQUI 681					0	1,394	2788000	55.129	0.1000	0.00	55.13		0.85	0.20	YES
EQUI 682					0	1,394	2788000	55.129	0.1000	0.00	55.13		7.33	1.67	YES
EQUI 683					0	1,394	2788000	55.129	0.1000	0.00	55.13		0.85	0.20	YES
EQUI 282	STRU 212		36700	700	16,705			0.000	0.0754	10.80	10.80	0.0754	0.02	0.00	YES
EQUI 317, EQUI 376	STRU 213		36700	700	16,705			0.000	0.0754	10.80	10.80	0.0754	0.17	0.04	YES
EQUI 311, EQUI 312	STRU 250		36700	700	16,705			0.000	0.0754	10.80	10.80	0.0754	0.17	0.04	YES
EQUI 148, EQUI 352	STRU 203				0	240	480000	41.604	0.1000	0.00	41.60		9.87	2.25	YES
EQUI 270	STRU 158				0	240	480000	41.604	0.1000	0.00	41.60		21.27	4.86	YES
EQUI 108	STRU 71				0	240	480000	41.604	0.1000	0.00	41.60		21.27	4.86	YES
EQUI 180	STRU 159				0	436	872000	45.774	0.1000	0.00	45.77		16.00	3.65	YES
EQUI 109	STRU 72				0	240	480000	41.604	0.1000	0.00	41.60		16.00	3.65	YES
EQUI 110	STRU 160				0	436	872000	45.774	0.1000	0.00	45.77		16.00	3.65	YES
EQUI 181	STRU 161				0	436	872000	45.774	0.1000	0.00	45.77		16.00	3.65	YES
EQUI 111	STRU 73				0	436	872000	45.774	0.1000	0.00	45.77		16.00	3.65	YES
EQUI 182	STRU 162				0	436	872000	45.774	0.1000	0.00	45.77		16.00	3.65	YES
EQUI 112	STRU 74				0	436	872000	45.774	0.1000	0.00	45.77		16.00	3.65	YES
EQUI 183	STRU 163				0	436	872000	45.774	0.1000	0.00	45.77		16.00	3.65	YES
EQUI 113	STRU 75				0	436	872000	45.774	0.1000	0.00	45.77		16.00	3.65	YES
EQUI 114	STRU 164				0	436	872000	45.774	0.1000	0.00	45.77		16.00	3.65	YES
EQUI 184	STRU 76				0	436	872000	45.774	0.1000	0.00	45.77		16.00	3.65	YES
EQUI 115	STRU 165				0	436	872000	45.774	0.1000	0.00	45.77		16.00	3.65	YES
EQUI 185	STRU 77				0	436	872000	45.774	0.1000	0.00	45.77		16.00	3.65	YES
EQUI 116	STRU 166				0	436	872000	45.774	0.1000	0.00	45.77		16.00	3.65	YES
EQUI 186	STRU 78				0	436	872000	45.774	0.1000	0.00	45.77		16.00	3.65	YES
EQUI 117	STRU 167				0	436	872000	45.774	0.1000	0.00	45.77		16.00	3.65	YES
EQUI 187	STRU 79				0	436	872000	45.774	0.1000	0.00	45.77		16.00	3.65	YES
EQUI 118	STRU 168				0	436	872000	45.774	0.1000	0.00	45.77		16.00	3.65	YES
EQUI 124	STRU 80				0	436	872000	45.774	0.1000	0.00	45.77		16.00	3.65	YES
EQUI 188	STRU 228				0	436	872000	45.774	0.1000	0.00	45.77		16.00	3.65	YES
EQUI 125	STRU 81				0	436	872000	45.774	0.1000	0.00	45.77		16.00	3.65	YES
EQUI 189	STRU 169				0	436	872000	45.774	0.1000	0.00	45.77		16.00	3.65	YES
EQUI 126	STRU 82				0	436	872000	45.774	0.1000	0.00	45.77		16.00	3.65	YES
EQUI 190	STRU 82				0	436	872000	45.774	0.1000	0.00	45.77		16.00	3.65	YES
EQUI 191	STRU 170				0	436	872000	45.774	0.1000	0.00	45.77		16.00	3.65	YES
EQUI 127	STRU 83				0	436	872000	45.774	0.1000	0.00	45.77		76.58	17.48	YES
EQUI 684	STRU 171					34	68000	30.432	0.1000	0.00	30.43		0.16	0.04	YES
EQUI 685	STRU 84					34	68000	30.432	0.1000	0.00	30.43		0.16	0.04	YES

References - PM Particle Size Distributions & Control Efficiencies

	Appendix B.2 Category for Section 11.23	Cumulative % by Particle Size (Uncontrolled)			
	Particle Size	PM _{2.5}	PM _{6.0}	PM ₁₀	PM ₁₀ +
[101]	Category 4: Fine Crushing	30	62	85	100
[102]	Category 4: Pellet Handling	30	62	85	100
[103]	Category 5: Grate Discharge	18	37	53	100
[104]	Category 4: Grate Feed	30	62	85	100
[105]	Category 4: Bentonite Blending	30	62	85	100
[106]	Category 3: Coarse Crushing	15	34	51	100
[107]	Category 3: Ore Transfer	15	34	51	100
[108]	Category 4: Bentonite Transfer	30	62	85	100
[109]	Coal Sources	7.2	27.3	47.3	100
[110]	HPGR Conveyor	9.3	32.9	32.9	100
[111]	HPGR Grinding	8.3	45.0	45.0	100
[112]	Wood Waste System	59.3	59.3	59.3	100

	Appendix B.2 Category for Section 11.19.2	Cumulative % by Particle Size (Uncontrolled)			
	Particle Size	PM _{2.5}	PM _{6.0}	PM ₁₀	PM ₁₀ +
[113]	Category 3: Crushed Stone Processing, Tertiary Crushing & Screening	15.00	34	51	100

	Particle Size Distribution from Table 4-1 of AP-42 Section 11.23.	Cumulative % by Particle Size (Uncontrolled)			
	Particle Size	PM _{2.5}	PM _{6.0}	PM ₁₀	PM ₁₀ +
[114]	Indurating Furnace	17.40	25.6	35.2	100

[115] Filterable PM Control Efficiencies from AP-42 Appendix B Table B.2-3. Particle sizes greater than 10 microns are conservatively assumed to have a control efficiency equal to that of PM 6.0-10. The overall control efficiency is determined by applying the control efficiency for each particle size distribution to the mass fraction of each particle size distribution individually. The wood waste system was added manually, assumes 90% control efficiency per permit 13700005 - 006.

AP-42 Appendix B Table B.2-3				
AIRS Code	Type of Collector	Particle Size (µm)		
		0 - 2.5	2.5 - 6	6 - 10
001	Wet scrubber - hi-efficiency	90	95	99
002	Wet scrubber - med-efficiency	25	85	95
003	Wet scrubber - low-efficiency	20	80	90
004	Gravity collector - hi-efficiency	3.6	5	6
005	Gravity collector - med-efficiency	2.9	4	4.8
006	Gravity collector - low-efficiency	1.5	3.2	3.7
007	Centrifugal collector - hi-efficiency	80	95	95
008	Centrifugal collector - med-efficiency	50	75	85
009	Centrifugal collector - low-efficiency	10	35	50
010	Electrostatic precipitator - hi-efficiency	95	99	99
011	Electrostatic precipitator - med-efficiency			
	Boilers	50	80	94
	Other	80	90	97
012	Electrostatic precipitator - low-efficiency			
	Boilers	40	70	90
	Other	70	80	90

Refer to footnote [305] below for basis of lb/ton emission factors

Pollutant	EF (lb/ton)	EF (lb/LT)
PM-FIL	0.00108	0.00121
PM10-FIL	0.00051	0.00057
PM2.5-FIL	0.00008	0.00009

Particle size ratios based on ratios of PM-FIL, PM-10-FIL, & PM2.5-FIL EFs for Coal Drops. Ratio for PM6.0 determined using a trendline of the PM-FIL, PM10-FIL, & PM2.5-FIL EFs vs. their particle sizes.

Pollutant	Particle Size (µm)	Cumulative Mass%
PM	30	100.0
PM10<=	10	47.3
PM2.5<=	2.5	7.2
PM6.0<=	6	27.3

014	Mist eliminator - high velocity >250 FPM	10	75	90
015	Mist eliminator - low velocity	5	40	75
016	Fabric filter - high temperature	99	99.5	99.5
017	Fabric filter - med temperature	99	99.5	99.5
018	Fabric filter - low temperature	99	99.5	99.5
046	Process change	NA	NA	NA
049	Liquid filtration system	50	75	85
050	Packed-gas absorption column	90	95	99
051	Tray-type gas absorption column	25	85	95
052	Spray tower	20	80	90
053	Venturi scrubber	90	95	99
054	Process enclosed	1.5	3.2	3.7
055	Impingement plate scrubber	25	95	99
056	Dynamic separator (dry)	90	95	99
057	Dynamic separator (wet)	50	75	85
058	Mat or panel filter - mist collector	92	94	97
059	Metal fabric filter screen	10	15	20
061	Dust suppression by water sprays	40	65	90
062	Dust suppression by chemical stabilizer or wetting agents	40	65	90
063	Gravel bed filter	0	5	80
064	Annular ring filter	80	90	97
071	Fluid bed dry scrubber	10	20	90
075	Single cyclone	10	35	50
076	Multiple cyclone w/o fly ash reinjection	80	95	95
077	Multiple cyclone w/fly ash reinjection	50	75	85
085	Wet cyclonic separator	50	75	85
086	Water curtain	10	45	90
N/A	Wood Waste System per 13700005 - 006	90	90	90
	None	0	0	0

References - Controlled PM-FIL Emission Factors

- [200] Emission Sources Subject to MACT have a controlled PM-FIL EF = 0.008 gr/dscf. The only exception is the waste gas stacks, which use a PM-FIL emission factor of 0.0149 gr/dscf (maximum allowable emission rate, Taconite MACT limit is only 0.01 gr/dscf with one significant digit)
[PM emission factor based on AP-42, CH 11.23: Taconite Ore Processing Table 11.23-3 Emission Factors for Taconite Ore Processing Other Sources](https://www.epa.gov/sites/default/files/2020-10/documents/c11s23.pdf)
<https://www.epa.gov/sites/default/files/2020-10/documents/c11s23.pdf>

	Source	PM-FIL (lb/ton)	Emission Factor Rating	PM10-FIL (lb/ton)	Emission Factor Rating
[201]	Bentonite blending, with fabric filter	0.11	E	ND	--
[202]	Tertiary storage bin loading, with wet scrubber	0.0018	D	ND	--

J. P. Pilney and G. V. Jorgensen, Emissions From Iron Ore Mining, Beneficiation And Pelletization, Volume 1, EPA Contract No. 68-02-2113, Midwest Research Institute, Minnetonka, MN, June 1983.
 Results Of The January 8-10, 1980 Particulate Emission Compliance Tests On Emission Source Nos. 6.39, 6.40, 6.34, 6.44, 6.41, 6.56, 6.43, 8.43, 8.47, And 8.49 At The U.S. Steel Minntac Plant In Mountain Iron, MN,

- [203] [PM emission factor based on AP-42, CH 11.26 Talc Processing Table 11.26-1 Emission Factor For Talc Processing](https://www.epa.gov/sites/default/files/2020-10/documents/c11s26.pdf)
<https://www.epa.gov/sites/default/files/2020-10/documents/c11s26.pdf>

Process	Total PM (lb/1000 lb)
Pneumatic conveyor venting, with fabric filter	0.0018

Particulate Emissions Compliance Test, Luzenac America, Sappington Mill, Montana Air Quality Permit 1996-03, December 1994-March 1995, Bison Engineering, Inc., Helena, MT, March 29, 1995.

- [204] Hill Wood Products system assumes 0.54 lb/hr PM per Title V permit 13700005 - 006
 0.32 lb/hr PM10 per Title V permit 13700005 - 006

0.32 lb/hr PM2.5 Assume equivalent to PM10

References - Uncontrolled PM-FIL Emission Factors

These sources can typically be thought of as 'drop points'. Material loading onto piles, loading into trucks from front end loaders, dumping out of trucks, etc.

Material Type	Moisture Content (%)	Description
Lump Ore	5.4	AP-42, Table 13.2.4-1, Typical Silt and Moisture Contents of Materials at Various Industries (1/95)
Tailings	2.2	AP-42, Table 11.9-3, Typical values for correction factors applicable to the predictive emission factor equations. Lowest moisture
Overburden	7.9	AP-42, Table 11.9-3, Geometric mean value for overburden bulldozing.
("Fresh") Concentrate	10	Assume concentrate dropping onto pile has same moisture content as the desired moisture content after vacuum filters in the process.
Stockpiled Concentrate	3.1	Lowest concentrate pile moisture content value in 'Iron Range Air Quality Analysis', MRI Project No. 4523-L(2), (6/5/79), Table 4-
Taconite Ore	1.5	"Pellet Ore" from AP-42, Table 13.2.4-1, Typical Silt and Moisture Contents of Materials at Various Industries (1/95)

Drop Point Emission Factor. AP-42, 13.2.4 Equation 1

$$E = k(0.0032)[(U/5)^{1.3}/(M/2)^{1.4}] \text{ (lb/ton)}$$

E = emission factor (lb/ton)

k = particle size multiplier (dimensionless), AP-42 13.2.4.

PM	0.74
PM10	0.35
PM2.5	0.053

M = material moisture content (%)

U = mean wind speed, miles per hour [mph]. Wind speeds for Hibbing Airport meteorological data for 2017-2021 in table below.

The short term emission factor (lb/hr) uses the maximum mean wind speed over a 24-hr period.

The annual emission factor (ton/yr) uses the mean wind speed over the entire year.

Hibbing Airport Meteorological Data Summary 2017-2021

Year	Mean Annual wind speed		Maximum Mean Daily Wind Speed (24-hr Period)	
	(m/s)	(mph)	(m/s)	(mph)
2017	3.04	6.80	8.54	19.1
2018	2.87	6.42	8.36	18.7
2019	2.92	6.53	10.24	22.9
2020	2.94	6.58	8.18	18.3
2021	2.80	6.26	8.00	17.9
Maximum	3.04	6.8	10.24	22.9

	Material	Particle Size	Particle Size Multiplier k	Short Term U (mph)	Annual U (mph)	Moisture Content (%)	Short Term Total Emission Factor (lb/ton)	Annual Total Emission Factor (lb/ton)
[301]	Crude Ore	PM	0.74	22.90	6.80	5.4	0.00363	0.00108
		PM10	0.35	22.90	6.80	5.4	0.00172	0.00051
		PM2.5	0.053	22.90	6.80	5.4	0.00026	0.00008
[302]	Waste Material	PM	0.74	22.90	6.80	7.9	0.00248	0.00074
		PM10	0.35	22.90	6.80	7.9	0.00118	0.00035
		PM2.5	0.053	22.90	6.80	7.9	0.00018	0.00005
[303]	Fresh Concentrate	PM	0.74	22.90	6.80	10	0.00196	0.00058
		PM10	0.35	22.90	6.80	10	0.00093	0.00028

[304]	Stockpiled Concentrate	PM2.5	0.053	22.90	6.80	10	0.00014	0.00004
		PM	0.74	22.90	6.80	3.1	0.00633	0.00188
		PM10	0.35	22.90	6.80	3.1	0.00299	0.00089
		PM2.5	0.053	22.90	6.80	3.1	0.00045	0.00013
[305]	Coal	PM	0.74	22.90	6.80	5.4	0.00363	0.00108
		PM10	0.35	22.90	6.80	5.4	0.00172	0.00051
		PM2.5	0.053	22.90	6.80	5.4	0.00026	0.00008
		PM	0.74	22.90	6.80	1.5	0.01308	0.00389
[306]	Finished Pellets	PM10	0.35	22.90	6.80	1.5	0.00619	0.00184
		PM2.5	0.053	22.90	6.80	1.5	0.00094	0.00028
[307]	Tailings	PM	0.74	22.90	6.80	2.2	0.00892	0.00265
		PM10	0.35	22.90	6.80	2.2	0.00422	0.00125
		PM2.5	0.053	22.90	6.80	2.2	0.00064	0.00019

[308] PM-FIL based on MN IPER limits maximum allowable lb/hr emission rates for the Cooler Vent Stacks. The gr/dscf emission factor is back-calculated to match this accordingly

[309] PM-COND emission factors based on the average of the non-zero similar source stack tests since 1/1/2006 unless noted otherwise.

[310] HPGR emission factors for grinding and conveyance summarized below:

lb/ton factors	Conveyor	Grinding
Total PM	1.40E-04	1.20E-03
PM10	4.60E-05	5.40E-04
PM2.5	1.30E-05	1.00E-04

Conveyors - AP-42. Table 11.19.2-2 Emission Factors for Crushed Stone Processing Operations. Controlled (wet) conveyor transfer point.

Grinding - AP-42. Table 11.19.2-2 Emission Factors for Crushed Stone Processing Operations. Controlled (wet) crushing.

U. S. Steel Minntac - Title V Permit Renewal Application
Table 4 - Heating Boiler PTE Calculations

EU001 - EQUI 196 SV001 - STRU 142		EU002 - EQUI 197 SV002 - STRU 143		EU003 - EQUI 198 SV003 - STRU 144		EU004 - EQUI 199 SV004 - STRU 145	
Heating Boiler #1		Heating Boiler #2		Heating Boiler #3		Heating Boiler #4	
Burner Rating	104,000,000 BTU/hr	Burner Rating	104,000,000 BTU/hr	Burner Rating	125,000,000 BTU/hr	Burner Rating	153,000,000 BTU/hr
Fuel	Natural Gas	Fuel	Natural Gas	Fuel	Natural Gas	Fuel	Natural Gas
Natural Gas Heat Value	1050 BTU/ft ³	Natural Gas Heat Value	1050 BTU/ft ³	Natural Gas Heat Value	1050 BTU/ft ³	Natural Gas Heat Value	1050 BTU/ft ³
Back-up Fuel #1	Propane	Back-up Fuel #1	Propane	Back-up Fuel #1	Propane	Back-up Fuel #1	Propane
Propane Heat Value	91,500 BTU/gal	Propane Heat Value	91,500 BTU/gal	Propane Heat Value	91,500 BTU/gal	Propane Heat Value	91,500 BTU/gal
Back-up Fuel #2	#2 Fuel Oil	Back-up Fuel #2	#2 Fuel Oil	Back-up Fuel #2	#2 Fuel Oil	Back-up Fuel #2	#2 Fuel Oil
#2 Fuel Oil Heat Value	140,000 BTU/gal	#2 Fuel Oil Heat Value	140,000 BTU/gal	#2 Fuel Oil Heat Value	140,000 BTU/gal	#2 Fuel Oil Heat Value	140,000 BTU/gal
Potential Natural Gas Usage	867,657,143 ft ³ /yr	Potential Natural Gas Usage	867,657,143 ft ³ /yr	Potential Natural Gas Usage	1,042,857,143 ft ³ /yr	Potential Natural Gas U	1,276,457,143 ft ³ /yr
Potential Propane Usage	9,956,721 gal/yr	Potential Propane Usage	9,956,721 gal/yr	Potential Propane Usage	11,967,213 gal/yr	Potential Propane Usag	14,647,869 gal/yr
Potential #2 Fuel Oil Usage	6,507,429 gal/yr	Potential #2 Fuel Oil Usage	6,507,429 gal/yr	Potential #2 Fuel Oil Usage	7,821,429 gal/yr	Potential #2 Fuel Oil Us	9,573,429 gal/yr
EU005 - EQUI 200 SV005 - STRU 146		EU010 - EQUI 201 SV010 - STRU 149		EU011 - EQUI 202 SV011 - STRU 150		MES Heating Boiler #2	
Heating Boiler #5		MES Heating Boiler #1		MES Heating Boiler #2			
Burner Rating	153,000,000 BTU/hr	Burner Rating	24,600,000 BTU/hr	Burner Rating	24,600,000 BTU/hr		
Fuel	Natural Gas	Fuel	Natural Gas	Fuel	Natural Gas		
Natural Gas Heat Value	1050 BTU/ft ³	Natural Gas Heat Value	1050 BTU/ft ³	Natural Gas Heat Value	1050 BTU/ft ³		
Back-up Fuel #1	Propane	Back-up Fuel #1	Propane	Back-up Fuel #1	Propane		
Propane Heat Value	91,500 BTU/gal	Propane Heat Value	91,500 BTU/gal	Propane Heat Value	91,500 BTU/gal		
Back-up Fuel #2	#2 Fuel Oil	Back-up Fuel #2	#2 Fuel Oil	Back-up Fuel #2	#2 Fuel Oil		
#2 Fuel Oil Heat Value	140,000 BTU/gal	#2 Fuel Oil Heat Value	140,000 BTU/gal	#2 Fuel Oil Heat Value	140,000 BTU/gal		
Potential Natural Gas Usage	1,276,457,143 ft ³ /yr	Potential Natural Gas Usage	205,234,286 ft ³ /yr	Potential Natural Gas Usage	205,234,286 ft ³ /yr		
Potential Propane Usage	14,647,869 gal/yr	Potential Propane Usage	2,355,148 gal/yr	Potential Propane Usage	2,355,148 gal/yr		
Potential #2 Fuel Oil Usage	9,573,429 gal/yr	Potential #2 Fuel Oil Usage	1,539,257 gal/yr	Potential #2 Fuel Oil Usage	1,539,257 gal/yr		

PTE Natural Gas - See AP-42 Chapter 1.4 for Emission Factors

Pollutant	Emission Factor (lb/ft ³)	EU001 PTE (lbs/yr)	EU001 PTE (lbs/hr)	EU001 PTE (tons/yr)	EU002 PTE (lbs/yr)	EU002 PTE (lbs/hr)	EU002 PTE (tons/yr)	EU003 PTE (lbs/yr)	EU003 PTE (lbs/hr)	EU003 PTE (tons/yr)	EU004 PTE (lbs/yr)	EU004 PTE (lbs/hr)	EU004 PTE (tons/yr)	EU005 PTE (lbs/yr)	EU005 PTE (lbs/hr)	EU005 PTE (tons/yr)	EU010 PTE (lbs/yr)	EU010 PTE (lbs/hr)	EU010 PTE (tons/yr)	EU011 PTE (lbs/yr)	EU011 PTE (lbs/hr)	EU011 PTE (tons/yr)
PM	1.90E-06	1649	0.18819048	0.824	1649	0.188190476	0.824	1981	0.226190476	0.991	2425	0.276857143	1.213	2425	0.276857	1.213	390	0.044514	0.195	390	0.044514	0.195
PM ₁₀	7.60E-06	6594	0.7527619	3.297	6594	0.752761905	3.297	7926	0.904761905	3.963	9701	1.107428571	4.851	9701	1.107429	4.851	1,560	0.178057	0.780	1,560	0.178057	0.780
PM _{2.5}	7.60E-06	6594	0.7527619	3.297	6594	0.752761905	3.297	7926	0.904761905	3.963	9701	1.107428571	4.851	9701	1.107429	4.851	1,560	0.178057	0.780	1,560	0.178057	0.780
SO _x	6.00E-07	521	0.05942857	0.260	521	0.059428571	0.260	626	0.071428571	0.313	766	0.087428571	0.383	766	0.087429	0.383	123	0.014057	0.062	123	0.014057	0.062
NO _x	2.80E-04	242944	27.7333333	121.472	242944	27.73333333	121.472	292000	33.33333333	146.000	357408	40.8	178.704	357408	40.8	178.704	57,466	6.56	28.733	57,466	6.56	28.733
VOC	5.50E-06	4772	0.5447619	2.386	4772	0.544761905	2.386	5736	0.654761905	2.868	7021	0.801428571	3.510	7021	0.801429	3.510	1,129	0.128857	0.564	1,129	0.128857	0.564
CO	8.40E-05	72883	8.32	36.442	72883	8.32	36.442	87600	10	43.800	107222	12.24	53.611	107222	12.24	53.611	17,240	1.968	8.620	17,240	1.968	8.620
Lead	5E-10	0	4.9524E-05	0.000	0	4.95238E-05	0.000	1	5.95238E-05	0.000	1	7.28571E-05	0.000	1	7.29E-05	0.000	0	1.17E-05	0.000	0	1.17E-05	0.000
Benzene	2.1E-09	2	0.000208	0.001	2	0.000208	0.001	2	0.000208	0.001	3	0.000306	0.001	3	0.000306	0.001	0	4.92E-05	0.000	0	4.92E-05	0.000
Formaldehyde	7.50E-08	65	0.00742857	0.033	65	0.007428571	0.033	78	0.008928571	0.039	96	0.010928571	0.048	96	0.010929	0.048	15	0.001757	0.008	15	0.001757	0.008
Hexane	1.80E-06	1562	0.17828571	0.781	1562	0.178285714	0.781	1877	0.214285714	0.939	2298	0.262285714	1.149	2298	0.262286	1.149	369	0.042171	0.185	369	0.042171	0.185
Naphthalene	6.1E-10	1	6.0419E-05	0.000	1	6.0419E-05	0.000	1	7.2619E-05	0.000	1	8.8857E-05	0.000	1	8.89E-05	0.000	0	1.43E-05	0.000	0	1.43E-05	0.000
Toluene	3.4E-09	3	0.00033676	0.001	3	0.000336762	0.001	4	0.000404762	0.002	4	0.000495429	0.002	4	0.000495	0.002	1	7.97E-05	0.000	1	7.97E-05	0.000
POM	8.82E-11	0	8.736E-06	0.000	0	0.000008736	0.000	0	0.000012852	0.000	0	0.000012852	0.000	0	0.000012852	0.000	0	2.07E-06	0.000	0	2.07E-06	0.000
Arsenic	2E-10	0	1.981E-05	0.000	0	1.98095E-05	0.000	0	2.38095E-05	0.000	0	2.91429E-05	0.000	0	2.91E-05	0.000	0	4.69E-06	0.000	0	4.69E-06	0.000
Beryllium	1.2E-11	0	1.1886E-06	0.000	0	1.18857E-06	0.000	0	1.42857E-06	0.000	0	1.74857E-06	0.000	0	1.75E-06	0.000	0	2.81E-07	0.000	0	2.81E-07	0.000
Cadmium	1.1E-09	1	0.00010895	0.000	1	0.000108952	0.000	1	0.000130952	0.001	1	0.000160286	0.001	1	0.00016	0.001	0	2.58E-05	0.000	0	2.58E-05	0.000
Chromium	1.4E-09	1	0.00013867	0.001	1	0.000138667	0.001	1	0.000166667	0.001	2	0.000204	0.001	2	0.000204	0.001	0	3.28E-05	0.000	0	3.28E-05	0.000
Cobalt	8.4E-11	0	0.00000832	0.000	0	0.00000832	0.000	0	0.00001224	0.000	0	0.00001224	0.000	0	0.00001224	0.000	0	1.97E-06	0.000	0	1.97E-06	0.000
Manganese	3.8E-10	0	3.7638E-05	0.000	0	3.76381E-05	0.000	0	4.52381E-05	0.000	0	5.53714E-05	0.000	0	5.54E-05	0.000	0	8.9E-06	0.000	0	8.9E-06	0.000
Mercury	2.6E-10	0	2.5752E-05	0.000	0	2.57524E-05	0.000	0	3.09524E-05	0.000	0	3.78857E-05	0.000	0	3.79E-05	0.000	0	6.09E-06	0.000	0	6.09E-06	0.000
Nickel	2.1E-09	2	0.000208	0.001	2	0.000208	0.001	2	0.00025	0.001	3	0.000306	0.001	3	0.000306	0.001	0	4.92E-05	0.000	0	4.92E-05	0.000
Selenium	2.4E-11	0	2.3771E-06	0.000	0	2.37714E-06	0.000	0	2.85714E-06	0.000	0	3.49714E-06	0.000	0	3.5E-06	0.000	0	5.62E-07	0.000	0	5.62E-07	0.000
Total HAPs	1.9E-06	1637	0.18692843	0.819	1637	0.186928431	0.819	1968	0.224673595	0.984	2409	0.275000481	1.205	2409	0.275	1.205	387	0.044216	0.194	387	0.044216	0.194

See GHG Calculations in "PTE Summary - GHGs for Facility"

U. S. Steel Minntac - Title V Permit Renewal Application

Table 4 - Heating Boiler PTE Calculations

Propane PTE - See AP-42 Chapter 1.5 for Emission Factors

Pollutant	Emission Factor (lb/gal)	EU001 PTE (lbs/yr)	EU001 PTE (lbs/hr)	EU001 PTE (tons/yr)	EU002 PTE (lbs/yr)	EU002 PTE (lbs/hr)	EU002 PTE (tons/yr)	EU003 PTE (lbs/yr)	EU003 PTE (lbs/hr)	EU003 PTE (tons/yr)	EU004 PTE (lbs/yr)	EU004 PTE (lbs/hr)	EU004 PTE (tons/yr)	EU005 PTE (lbs/yr)	EU005 PTE (lbs/hr)	EU005 PTE (tons/yr)	EU010 PTE (lbs/yr)	EU010 PTE (lbs/hr)	EU010 PTE (tons/yr)	EU011 PTE (lbs/yr)	EU011 PTE (lbs/hr)	EU011 PTE (tons/yr)
PM	6.00E-04	5.974	0.68196721	2.987	5.974	0.681967213	2.987	7.180	0.819672131	3.590	8.789	1.003278689	4.394	8.789	1.003279	4.394	1.413	0.161311	0.707	1.413	0.161311	0.707
PM ₁₀	6.00E-04	5.974	0.68196721	2.987	5.974	0.681967213	2.987	7.180	0.819672131	3.590	8.789	1.003278689	4.394	8.789	1.003279	4.394	1.413	0.161311	0.707	1.413	0.161311	0.707
PM _{2.5}	6.00E-04	5.974	0.68196721	2.987	5.974	0.681967213	2.987	7.180	0.819672131	3.590	8.789	1.003278689	4.394	8.789	1.003279	4.394	1.413	0.161311	0.707	1.413	0.161311	0.707
SO _x	1.80E-05	179	0.02045902	0.090	179	0.020459016	0.090	215	0.024590164	0.108	264	0.030098361	0.132	264	0.030098	0.132	42	0.004839	0.021	42	0.004839	0.021
NO _x	1.90E-02	189,178	21.5956294	94.589	189,178	21.59562842	94.589	227,377	25.95628415	113.689	278,310	31.7704918	139.155	278,310	31.77049	139.155	44,748	5.108197	22.374	44,748	5.108197	22.374
VOC	5.00E-03	49,784	5.68306011	24.892	49,784	5.68306109	24.892	59,836	6.830601093	29.918	73.239	8.360655738	36.620	73.239	8.360656	36.620	11,776	1.344262	5.888	11,776	1.344262	5.888
CO	3.20E-03	31,862	3.63715847	15.931	31,862	3.63715847	15.931	38,295	4.371584699	19.148	46.873	5.350819672	23.437	46,873	5.35082	23.437	7,536	0.860328	3.768	7,536	0.860328	3.768

See GHG Calculations in "PTE Summary - GHGs for Facility"

#2 Fuel Oil PTE - Refer to AP-42 Section 1.3 for Emission Factors

Pollutant	Emission Factor (lb/gal)	EU001 PTE (lbs/yr)	EU001 PTE (lbs/hr)	EU001 PTE (tons/yr)	EU002 PTE (lbs/yr)	EU002 PTE (lbs/hr)	EU002 PTE (tons/yr)	EU003 PTE (lbs/yr)	EU003 PTE (lbs/hr)	EU003 PTE (tons/yr)	EU004 PTE (lbs/yr)	EU004 PTE (lbs/hr)	EU004 PTE (tons/yr)	EU005 PTE (lbs/yr)	EU005 PTE (lbs/hr)	EU005 PTE (tons/yr)	EU010 PTE (lbs/yr)	EU010 PTE (lbs/hr)	EU010 PTE (tons/yr)	EU011 PTE (lbs/yr)	EU011 PTE (lbs/hr)	EU011 PTE (tons/yr)
PM	2.00E-03	13,015	1.48571429	6.507	13,015	1.485714286	6.507	15,643	1.785714286	7.821	19,147	2.185714286	9.573	19,147	2.185714	9.573	3,079	0.351429	1.539	3,079	0.351429	1.539
PM ₁₀	3.30E-03	21,475	2.45142857	10.737	21,475	2.451428571	10.737	25,811	2.946428571	12.905	31,592	3.606428571	15.796	31,592	3.606429	15.796	5,080	0.579857	2.540	5,080	0.579857	2.540
PM _{2.5}	3.30E-03	21,475	2.45142857	10.737	21,475	2.451428571	10.737	25,811	2.946428571	12.905	31,592	3.606428571	15.796	31,592	3.606429	15.796	5,080	0.579857	2.540	5,080	0.579857	2.540
SO _x	7.39E-02	480,574	54.86	240.287	480,574	54.86	240.287	577.613	65.9375	288.806	706.998	80.7075	353.499	706.998	80.7075	353.499	113,674	12.9765	56.837	113,674	12.9765	56.837
NO _x	2.40E-02	156,178	17.8285714	78.089	156,178	17.82857143	78.089	187,714	21.42857143	93.857	229.762	26.22857143	114.881	229.762	26.22857	114.881	36,942	4.217143	18.471	36,942	4.217143	18.471
VOC	2.00E-04	1,301	0.14857143	0.651	1,301	0.148571429	0.651	1,564	0.178571429	0.782	1,915	0.218571429	0.957	1,915	0.218571	0.957	308	0.035143	0.154	308	0.035143	0.154
CO	5.00E-03	32,537	3.71428571	16.269	32,537	3.714285714	16.269	39,107	4.464285714	19.554	47.867	5.464285714	23.934	47.867	5.464286	23.934	7,696	0.878571	3.848	7,696	0.878571	3.848
Lead	1.26E-06	8	0.000936	0.004	8	0.000936	0.004	10	0.001125	0.005	12	0.001377	0.006	12	0.001377	0.006	2	0.000221	0.001	2	0.000221	0.001
Benzene	2.14E-07	1	0.00015897	0.001	1	0.000158971	0.001	2	0.000191071	0.001	2	0.000233871	0.001	2	0.000234	0.001	0	3.76E-05	0.000	0	3.76E-05	0.000
Ethyl Benzene	6.39E-08	0	4.7245E-05	0.000	0	4.72457E-05	0.000	0	5.67857E-05	0.000	1	6.95057E-05	0.000	1	6.95E-05	0.000	0	1.12E-05	0.000	0	1.12E-05	0.000
Formaldehyde	3.30E-05	215	0.02451429	0.107	215	0.024514286	0.107	258	0.029464286	0.129	316	0.036064286	0.158	316	0.036064	0.158	51	0.005799	0.025	51	0.005799	0.025
Naphthalene	1.13E-06	7	0.00083943	0.004	7	0.000839429	0.004	9	0.001008929	0.004	11	0.001234929	0.005	11	0.001235	0.005	2	0.000199	0.001	2	0.000199	0.001
Arsenic	1.32E-06	9	0.00098057	0.004	9	0.000980571	0.004	10	0.001178571	0.005	13	0.001442571	0.006	13	0.001443	0.006	2	0.000232	0.001	2	0.000232	0.001
Beryllium	2.78E-05	181	0.02065143	0.090	181	0.020651429	0.090	217	0.024821429	0.109	266	0.030381429	0.133	266	0.030381	0.133	43	0.004885	0.021	43	0.004885	0.021
Cadmium	3.98E-07	3	0.00029566	0.001	3	0.000295657	0.001	4	0.00035357	0.002	4	0.000434957	0.002	4	0.000435	0.002	1	6.99E-05	0.000	1	6.99E-05	0.000
Chromium	8.45E-07	5	0.000627714	0.003	5	0.000627714	0.003	7	0.000754464	0.003	8	0.000923464	0.004	8	0.000923	0.004	1	0.000148	0.001	1	0.000148	0.001
Formaldehyde	3.30E-05	215	0.02451429	0.107	215	0.024514286	0.107	258	0.029464286	0.129	316	0.036064286	0.158	316	0.036064	0.158	51	0.005799	0.025	51	0.005799	0.025
Toluene	6.30E-06	40	0.00480571	0.020	40	0.004805714	0.020	48	0.00535714	0.024	59	0.006757714	0.030	59	0.006778	0.030	10	0.001089	0.005	10	0.001089	0.005
Mercury	1.13E-07	1	8.3943E-05	0.000	1	8.39429E-05	0.000	1	0.000100893	0.000	1	0.000123493	0.001	1	0.000123	0.001	0	1.99E-05	0.000	0	1.99E-05	0.000
Manganese	3.00E-07	2	0.00022286	0.001	2	0.000222857	0.001	2	0.000267857	0.001	3	0.000327857	0.001	3	0.000328	0.001	0	5.27E-05	0.000	0	5.27E-05	0.000
Nickel	8.45E-05	550	0.06277143	0.275	550	0.062771429	0.275	661	0.075446429	0.330	809	0.092346429	0.404	809	0.092346	0.404	130	0.014848	0.065	130	0.014848	0.065
Total HAPs	1.90E-04	1,237	0.14124953	0.619	1,237	0.141249531	0.619	1,487	0.169771071	0.744	1,820	0.207799791	0.910	1,820	0.2078	0.910	293	0.033411	0.146	293	0.033411	0.146

See GHG Calculations in "PTE Summary - GHGs for Facility"

Emission Summary

Pollutant	EU001 PTE (tons/yr)	EU002 PTE (tons/yr)	EU003 PTE (tons/yr)	EU004 PTE (tons/yr)	EU005 PTE (tons/yr)	EU010 PTE (tons/yr)	EU011 PTE (tons/yr)	EU001 PTE (lb/hr)	EU002 PTE (lb/hr)	EU003 PTE (lb/hr)	EU004 PTE (lb/hr)	EU005 PTE (lb/hr)	EU010 PTE (lb/hr)	EU011 PTE (lb/hr)
PM	6.507	6.507	7.821	9.573	9.573	1.539	1.539	1.486	1.486	1.786	2.186	2.186	0.351	0.351
PM ₁₀	10.737	10.737	12.905	15.796	15.796	2.540	2.540	2.451	2.451	2.946	3.606	3.606	0.580	0.580
PM _{2.5}	10.737	10.737	12.905	15.796	15.796	2.540	2.540	2.451	2.451	2.946	3.606	3.606	0.580	0.580
SO _x	240.287	240.287	288.806	353.499	353.499	56.837	56.837	54.860	54.860	65.938	80.708	80.708	12.977	12.977
NO _x	121.472	121.472	146.000	178.704	178.704	28.733	28.733	27.733	27.733	33.333	40.800	40.800	6.560	6.560
VOC	24.892	24.892	29.918	36.620	36.620	5.888	5.888	5.683	5.683	6.831	8.361	8.361	1.344	1.344
CO	36.442	36.442	43.800	53.611	53.611	8.620	8.620	8.320	8.320	10.000	12.240	12.240	1.968	1.968
Lead	0.004	0.004	0.005	0.006	0.006	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.000	0.000
Benzene	0.001	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Formaldehyde	0.107	0.107	0.129	0.158	0.158	0.025	0.025	0.025	0.025	0.029	0.036	0.036	0.006	0.006
Hexane	0.781	0.781	0.939	1.149	1.149	0.185	0.185	0.178	0.178	0.214	0.262	0.262	0.042	0.042
Naphthalene	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Toluene	0.001	0.001	0.002	0.002	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Arsenic	0.004	0.004	0.005	0.006	0.006	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.000	0.000
Beryllium	0.090	0.090	0.109	0.133	0.133	0.021	0.021	0.021	0.021	0.025	0.030	0.030	0.005	0.005
Cadmium	0.001	0.001	0.002	0.002	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Chromium	0.003	0.003	0.003	0.004	0.004	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.000	0.000
Cobalt	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Manganese	0.001	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Mercury	0.000	0.000	0.000	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Nickel	0.275	0.275	0.330	0.404	0.404	0.065	0.065	0.063	0.063	0.075	0.092	0.092	0.015	0.015
Selenium	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total HAPs	0.819	0.819	0.984	1.205	1.205	0.194	0.194							

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Table 5 - Zinc Melt Furnaces PTE Calculations

EU028 - EQUI 282 SV019 - STRU 212	Zinc Melt Furnace - Coarse Crusher
Burner Rating	2,000,000 Btu/hr
Heat Value - Natural Gas	1050 Btu/ft ³
Potential Natural Gas Usage	16,685,714 ft ³ /yr

EU142 - EQUI 311 SV086 - STRU 250	Zinc Melt Furnace - Fines Crusher
Max. Rated Capacity	9.7 gals/hr
Sulfur Content of Fuel Oil	0.5 %
Heat Value of #2 Fuel Oil	140000 BTU/gal
Potential #2 Fuel Oil Usage	84972 gals/yr

EU031 - EQUI 317 SV020 - STRU 213	Zinc Melt Furnace - Coarse Crusher
Max. Rated Capacity	9.7 gals/hr
Sulfur Content of Fuel Oil	0.5 %
Heat Value of #2 Fuel Oil	140000 BTU/gal
Potential #2 Fuel Oil Usage	84972 gals/yr

EU143 - EQUI 312 SV086 - STRU 250	Zinc Melt Furnace - Fines Crusher
Max. Rated Capacity	9.7 gals/hr
Sulfur Content of Fuel Oil	0.5 %
Heat Value of #2 Fuel Oil	140000 BTU/gal
Potential #2 Fuel Oil Usage	84972 gals/yr

EU032 - EQUI 376 SV020 - STRU 213	Zinc Melt Furnace - Coarse Crusher
Max. Rated Capacity	9.7 gals/hr
Sulfur Content of Fuel Oil	0.5 %
Heat Value of #2 Fuel Oil	140000 BTU/gal
Potential #2 Fuel Oil Usage	84972 gals/yr

Fuel Oil Furnaces - Refer to AP-42 Section 1.3 for Emission Factors

Pollutant	Emission Factor (lbs/gal)	EU031 PTE (lbs/yr)	EU031 PTE (lbs/hr)	EU031 PTE (tons/yr)	EU032 PTE (lbs/yr)	EU032 PTE (lbs/hr)	EU032 PTE (tons/yr)	EU142 PTE (lbs/yr)	EU142 PTE (lbs/hr)	EU142 PTE (tons/yr)	EU143 PTE (lbs/yr)	EU143 PTE (lbs/hr)	EU143 PTE (tons/yr)
PM	2.00E-03	170	0.0194	0.085	170	0.0194	0.085	170	0.0194	0.085	170	0.0194	0.085
PM ₁₀	3.30E-03	280	0.03201	0.140	280	0.03201	0.140	280	0.03201	0.140	280	0.03201	0.140
PM _{2.5}	3.30E-03	280	0.03201	0.140	280	0.03201	0.140	280	0.03201	0.140	280	0.03201	0.140
SO _x	7.20E-02	6,118	0.6984	3.059	6,118	0.6984	3.059	6,118	0.6984	3.059	6,118	0.6984	3.059
NO _x	2.00E-02	1,699	0.194	0.850	1,699	0.194	0.850	1,699	0.194	0.850	1,699	0.194	0.850
VOC	3.40E-04	29	0.003298	0.014	29	0.003298	0.014	29	0.003298	0.014	29	0.003298	0.014
CO	5.00E-03	425	0.0485	0.212	425	0.0485	0.212	425	0.0485	0.212	425	0.0485	0.212
Lead	1.26E-06	0	1.2222E-05	0.000	0	1.22E-05	0.000	0	1.22E-05	0.000	0	1.22E-05	0.000
Arsenic	1.32E-06	0	1.2804E-05	0.000	0	1.28E-05	0.000	0	1.28E-05	0.000	0	1.28E-05	0.000
Benzene	2.14E-07	0	2.0758E-06	0.000	0	2.08E-06	0.000	0	2.08E-06	0.000	0	2.08E-06	0.000
Ethyl Benzene	6.36E-08	0	6.1692E-07	0.000	0	6.17E-07	0.000	0	6.17E-07	0.000	0	6.17E-07	0.000
Napthalene	1.13E-06	0	1.0961E-05	0.000	0	1.1E-05	0.000	0	1.1E-05	0.000	0	1.1E-05	0.000
Toluene	6.20E-06	1	0.0006014	0.000	1	6.01E-05	0.000	1	6.01E-05	0.000	1	6.01E-05	0.000
Beryllium	2.78E-05	2	0.00026966	0.001	2	0.00027	0.001	2	0.00027	0.001	2	0.00027	0.001
Cadmium	3.98E-07	0	3.8606E-06	0.000	0	3.86E-06	0.000	0	3.86E-06	0.000	0	3.86E-06	0.000
Chromium	8.45E-07	0	8.1965E-06	0.000	0	8.2E-06	0.000	0	8.2E-06	0.000	0	8.2E-06	0.000
Formaldehyde	3.30E-05	3	0.0003201	0.001	3	0.00032	0.001	3	0.00032	0.001	3	0.00032	0.001
Mercury	1.13E-07	0	1.0961E-06	0.000	0	1.1E-06	0.000	0	1.1E-06	0.000	0	1.1E-06	0.000
Manganese	3.00E-07	0	0.00000291	0.000	0	2.91E-06	0.000	0	2.91E-06	0.000	0	2.91E-06	0.000
Nickel	8.45E-05	7	0.00081965	0.004	7	0.00082	0.004	7	0.00082	0.004	7	0.00082	0.004
Total HAPs	1.57E-04	13	0.00152429	0.007	13	0.001524	0.007	13	0.001524	0.007	13	0.001524	0.007

See GHG Calculations in "PTE Summary - GHGs for Facility"

PTE Natural Gas - See AP-42 Chapter 1.4 for Emission Factors

Pollutant	Emission Factor (lbs/ft ³)	EU028 PTE (lbs/yr)	EU028 PTE (lbs/hr)	EU028 PTE (tons/yr)
PM	1.90E-06	31.703	0.00361905	0.016
PM ₁₀	7.60E-06	126.811	0.01447619	0.063
PM _{2.5}	7.60E-06	126.811	0.01447619	0.063
SO _x	6.00E-07	10.011	0.00114286	0.005
NO _x	1.00E-04	1668.571	0.19047619	0.834
VOC	5.50E-06	91.771	0.01047619	0.046
CO	8.40E-05	1401.600	0.16	0.701
Lead	5.00E-10	0.008	9.5238E-07	0.000
Benzene	2.10E-09	0.035	0.000004	0.000
Formaldehyde	7.50E-08	1.251	0.00014286	0.001
Hexane	1.80E-06	30.034	0.00342857	0.015
Naphthalene	6.10E-10	0.010	1.1619E-06	0.000
Toluene	3.40E-09	0.057	6.4762E-06	0.000
POM	8.82E-11	0.001	1.68E-07	0.000
Arsenic	2.00E-10	0.003	3.8095E-07	0.000
Beryllium	1.20E-11	0.000	2.2857E-08	0.000
Cadmium	1.10E-09	0.018	2.0952E-06	0.000
Chromium	1.40E-09	0.023	2.6667E-06	0.000
Cobalt	8.40E-11	0.001	0.00000016	0.000
Manganese	3.80E-10	0.006	7.2381E-07	0.000
Mercury	2.60E-10	0.004	4.9524E-07	0.000
Nickel	2.10E-09	0.035	0.000004	0.000
Selenium	2.40E-11	0.000	4.5714E-08	0.000
Total HAPs	1.89E-06	31.490	0.00359478	0.016

See GHG Calculations in "PTE Summary - GHGs for Facility"

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Table 6 - Space Heater PTE Calculations

Space Heaters

SV198 - STRU 252

EU401 - EQUI 255

Max. Capacity 88,460,000 Btu/hr
88 MMBtu/hr

Fuel Natural Gas

Heat Value: 1050 Btu/ft³

Max. Throughput: 738,009,143 ft³/yr

PTE Natural Gas - See AP-42 Chapter 1.4 for Emission Factors

Pollutant	Emission Factor (lb/ft ³)	EU401 PTE (lbs/yr)	EU401 PTE (lb/hr)	EU401 PTE (tons/yr)
PM	1.90E-06	1,402	0.16	0.701
PM ₁₀	7.60E-06	5,609	0.64	2.804
PM _{2.5}	7.60E-06	5,609	0.64	2.804
SO _x	6.00E-07	443	0.05	0.221
NO _x	1.00E-04	73,801	8.42	36.900
VOC	5.50E-06	4,059	0.46	2.030
CO	8.40E-05	61,993	7.08	30.996
Lead	5.00E-10	0	0.00	0.000
Benzene	2.10E-09	2	0.00	0.001
Formaldehyde	7.50E-08	55	0.01	0.028
Hexane	1.80E-06	1,328	0.15	0.664
Naphthalene	6.10E-10	0	0.00	0.000
Toluene	3.40E-09	3	0.00	0.001
Arsenic	2.00E-10	0	0.00	0.000
Beryllium	1.20E-11	0	0.00	0.000
Cadmium	1.10E-09	1	0.00	0.000
Chromium	1.40E-09	1	0.00	0.001
Cobalt	8.40E-11	0	0.00	0.000
Manganese	3.80E-10	0	0.00	0.000
Mercury	2.60E-10	0	0.00	0.000
Nickel	2.10E-09	2	0.00	0.001
Selenium	2.40E-11	0	0.00	0.000
Total HAPs	1.89E-06	1,393	0.16	0.696

See GHG Calculations in "PTE Summary - GHGs for Facility"

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Table 7 - Misc. Ovens PTE Calculations

EU389 - EQUI 373 Electric Shop Curing Oven

SV189

Max. Rated Capacity 2 MMBTU/hr

Heat Value of Natural Gas 1050 BTU/ft³

Potential Natural Gas Usage 16,685,714 ft³/yr

EU390 - EQUI 712 Burnout Oven

SV190 - STRU 176

Max. Rated Capacity 0.8 MMBTU/hr

Heat Value of Natural Gas 1050 BTU/ft³

Potential Natural Gas Usage 6,674,286 ft³/yr

PTE Natural Gas - See AP-42 Chapter 1.4 for Emission Factors

Pollutant	Emission Factor (lb/ft ³)	EU389 PTE (lbs/yr)	EU389 PTE (lbs/hr)	EU389 PTE (tons/yr)	EU390 PTE (lbs/yr)	EU390 PTE (lbs/hr)	EU390 PTE (tons/yr)
PM	1.90E-06	32	0.004	0.016	13	0.001	0.006
PM ₁₀	7.60E-06	127	0.014	0.063	51	0.006	0.025
PM _{2.5}	7.60E-06	127	0.014	0.063	51	0.006	0.025
SO _x	6.00E-07	10	0.001	0.005	4	0.000	0.002
NO _x	1.00E-04	1,669	0.190	0.834	667	0.076	0.334
VOC	5.50E-06	92	0.010	0.046	37	0.004	0.018
CO	8.40E-05	1,402	0.160	0.701	561	0.064	0.280
Lead	5.00E-10	0	0.000	0.000	0	0.000	0.000
Benzene	2.10E-09	0	0.000	0.000	0	0.000	0.000
Formaldehyde	7.50E-08	1	0.000	0.001	1	0.000	0.000
Hexane	1.80E-06	30	0.003	0.015	12	0.001	0.006
Naphthalene	6.10E-10	0	0.000	0.000	0	0.000	0.000
Toluene	3.40E-09	0	0.000	0.000	0	0.000	0.000
Arsenic	2.00E-10	0	0.000	0.000	0	0.000	0.000
Beryllium	1.20E-11	0	0.000	0.000	0	0.000	0.000
Cadmium	1.10E-09	0	0.000	0.000	0	0.000	0.000
Chromium	1.40E-09	0	0.000	0.000	0	0.000	0.000
Cobalt	8.40E-11	0	0.000	0.000	0	0.000	0.000
Manganese	3.80E-10	0	0.000	0.000	0	0.000	0.000
Mercury	2.60E-10	0	0.000	0.000	0	0.000	0.000
Nickel	2.10E-09	0	0.000	0.000	0	0.000	0.000
Selenium	2.40E-11	0	0.000	0.000	0	0.000	0.000
Total HAPs	1.89E-06	31	0.004	0.016	13	0.001	0.006

See GHG Calculations in "PTE Summary - GHGs for Facility"

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Table 9 - Diesel Engines PTE Calculations

EU006 - EQUI 688 SV006 - STRU 147 Max. Capacity	Diesel Generator - UP(S1) 24.5 gals/hr 241 HP	EU008 - EQUI 689 SV008 - STRU 194 Max. Capacity	Diesel Generator - UP (S3) 50.7 gals/hr 1135 HP	EU009 - EQUI 690 SV009 - STRU 148 Max. Capacity	Diesel Fire Pump - UP 10.75 gals/hr 430 HP
EU012 - EQUI 691 SV012 - STRU 151 Max. Capacity	Diesel Generator - MES 40.4 gals/hr 536 HP	EU051 - EQUI 696 SV029 - STRU 220 Max. Capacity	Diesel Generator - Turn Bin 35.1 gals/hr 483 HP	EU383 - EQUI 692 SV183 - STRU 172 Max. Capacity	Diesel Generator - Aggl. Step 1 41 gals/hr 536 HP
EU384 - EQUI 693 SV184 - STRU 85 Max. Capacity	Diesel Generator - Aggl. Step 1 45 gals/hr 483 HP	EU216 - EQUI 274 SV099 - STRU 229 Max. Capacity	Diesel Generator Step 2 43 gal/hr 670 HP 645 HP	EU385 - EQUI 694 SV185 - STRU 173 Max. Capacity	Diesel Generator - Aggl. Step 3 37.2 gals/hr 483 HP
EU386 - EQUI 695 SV186 - STRU 174 Max. Capacity	Diesel Generator - Aggl. Step 3 37.2 gals/hr 483 HP	EU404 - EQUI 671 SV098 - STRU 119 Max Capacity	Diesel Emergency Generator - Cono 670.5 HP	EU413 - EQUI 672 SV201 - STRU 262 Max Capacity	Diesel Emergency Generator - Guard Shack 79 HP

Diesel Heat Value: 140,000 BTU/gal

Pollutant	* <600 HP Emission Factor (lbs/MMBTU)	* >600 HP Emission Factor (lbs/MMBTU)	EU006 PTE (lbs/yr)	EU006 PTE (lbs/hr)	EU006 PTE (tons/yr)	EU008 PTE (lbs/yr)	EU008 PTE (lbs/hr)	EU008 PTE (tons/yr)	EU009 PTE (lbs/yr)	EU009 PTE (lbs/hr)	EU009 PTE (tons/yr)	EU012 PTE (lbs/yr)	EU012 PTE (lbs/hr)	EU012 PTE (tons/yr)	EU051 PTE (lbs/yr)	EU051 PTE (lbs/hr)	EU051 PTE (tons/yr)	EU216 PTE (lbs/yr)	EU216 PTE (lbs/hr)	EU216 PTE (tons/yr)	EU383 PTE (lbs/yr)	EU383 PTE (lbs/hr)	EU383 PTE (tons/yr)	EU384 PTE (lbs/yr)	EU384 PTE (lbs/hr)	EU384 PTE (tons/yr)
PM	0.3100	0.0697	532	1.0633	0.266	247	0.494731	0.124	233	0.46655	0.117	877	1.75336	0.438	762	1.52334	0.381	210	0.419594	0.105	890	1.7794	0.445	977	1.953	0.488
PM ₁₀	0.3100	0.0573	532	1.0633	0.266	203	0.406715	0.102	233	0.46655	0.117	877	1.75336	0.438	762	1.52334	0.381	172	0.344946	0.086	890	1.7794	0.445	977	1.953	0.488
PM _{2.5}	0.3100	0.0573	532	1.0633	0.266	203	0.406715	0.102	233	0.46655	0.117	877	1.75336	0.438	762	1.52334	0.381	172	0.344946	0.086	890	1.7794	0.445	977	1.953	0.488
SO _x	0.0015	0.0015	3	0.005145	0.001	5	0.010647	0.003	1	0.002258	0.001	4	0.008484	0.002	4	0.007371	0.002	5	0.00903	0.002	4	0.00861	0.002	5	0.00945	0.002
NO _x	4.4100	3.2000	7,563	15.1263	3.782	11,357	22.7136	5.678	3,319	6.63705	1.659	12,471	24.94296	6.236	10,835	21.67074	5.418	9,632	19.264	4.816	12,657	25.3134	6.328	13,892	27.783	6.946
VOC	0.3600	0.0820	617	1.2348	0.309	291	0.582036	0.146	271	0.5418	0.135	1,018	2.03616	0.509	885	1.76904	0.442	247	0.49364	0.123	1,033	2.0664	0.517	1,134	2.268	0.567
CO	0.9500	0.8500	1,629	3.2585	0.815	3,017	6.0333	1.508	715	1.42975	0.357	2,687	5.3732	1.343	2,334	4.6683	1.167	2,559	5.117	1.279	2,727	5.453	1.363	2,993	5.985	1.496
CO ₂	163	163	279,637	559.2741745	139.8	578,678	1157.355	289.3	122,698	245.3958	61.3	461,116	922.2317	230.6	400,623	801.2458582	200.3	490,792	981.5832	245.4	467,964	935.9282	234.0	513,619	1027.238	256.8
N ₂ O	1.32E-03	1.32E-03	2	0.004537108	0.001	5	0.009389	0.002	1	0.001991	0.000	4	0.007482	0.002	3	0.006500102	0.002	4	0.007963	0.002	4	0.007593	0.002	4	0.008333	0.002
CH ₄	8.10E-03	8.10E-03	14	0.027783	0.007	29	0.057494	0.014	6	0.012191	0.003	23	0.045814	0.011	20	0.0398034	0.010	24	0.048762	0.012	23	0.046494	0.012	26	0.05103	0.013
CO ₂ e	165	165	282,975	565.95	141.5	585,585	1171.17	292.8	124,163	248.325	62.1	466,620	933.24	233.3	405,405	810.81	202.7	496,650	993.3	248.3	473,550	947.1	236.8	519,750	1039.5	259.9
Benzene	9.33E-04	7.76E-04	2	0.00320019	0.001	3	0.005508	0.001	1	0.001404	0.000	3	0.005277	0.001	2	0.004584762	0.001	2	0.004672	0.001	3	0.005355	0.001	3	0.005878	0.001
Toluene	4.09E-04	2.81E-04	1	0.00140287	0.000	1	0.001995	0.000	0	0.000616	0.000	1	0.002313	0.001	1	0.002009826	0.001	1	0.001692	0.000	1	0.002348	0.001	1	0.002577	0.001
Xylene	2.85E-04	1.93E-04	0	0.00097755	0.000	1	0.00137	0.000	0	0.000429	0.000	1	0.001612	0.000	1	0.00140049	0.000	1	0.001162	0.000	1	0.001636	0.000	1	0.001796	0.000
1,3-Butadiene	3.91E-05	3.91E-05	0	0.000134113	0.000	0	0.000278	0.000	0	5.88E-05	0.000	0	0.000221	0.000	0	0.000192137	0.000	0	0.000235	0.000	0	0.000224	0.000	0	0.000246	0.000
Formaldehyde	1.18E-03	7.89E-05	2	0.0040474	0.001	0	0.00056	0.000	1	0.001776	0.000	3	0.006674	0.002	3	0.00579852	0.001	0	0.000475	0.000	3	0.006773	0.002	4	0.007434	0.002
Acetaldehyde	7.67E-04	2.52E-05	1	0.00263081	0.001	0	0.000179	0.000	1	0.001154	0.000	2	0.004338	0.001	2	0.003769038	0.001	0	0.000152	0.000	2	0.004403	0.001	2	0.004832	0.001
Acrolein	9.25E-05	7.88E-06	0	0.000317275	0.000	0	5.59E-05	0.000	0	0.000139	0.000	0	0.000523	0.000	0	0.000454545	0.000	0	4.74E-05	0.000	0	0.000531	0.000	0	0.000583	0.000
Naphthalene	8.84E-05	1.30E-04	0	0.000303212	0.000	0	0.000923	0.000	0	0.000133	0.000	0	0.0005	0.000	0	0.000434398	0.000	0	0.000783	0.000	0	0.000507	0.000	0	0.000557	0.000
PAH	1.68E-04	2.12E-04	0	0.00057624	0.000	1	0.001505	0.000	0	0.000253	0.000	0	0.00095	0.000	0	0.000825552	0.000	1	0.001276	0.000	0	0.000964	0.000	1	0.001058	0.000
Total HAPs	3.96E-03	1.74E-03	7	0.01358966	0.003	6	0.012372	0.003	3	0.005963	0.001	11	0.022409	0.006	10	0.019469268	0.005	5	0.010493	0.003	11	0.022742	0.006	12	0.024961	0.006

* Note: The emission factors for criteria pollutants and HAPs were taken from AP-42 Table 3.3-1 and Table 3.3-2 respectively for <600 HP engines. The emission factors for the criteria pollutants and HAPs were taken from AP-42 Table 3.4-1, Table 3.4-2, and Table 3.4-3 respectively for the >600 HP engines.
CO2, CH4, and NO2 emission factor from Part 98 Table C-2 - Mandatory Greenhouse Gas Reporting. However, the emission factor for CO2e from AP-42 was used for overall CO2e values since the factor is RICE specific.

Refer to the *EU404* and *EU413* tabs for detailed calculations

EU385 PTE (lbs/yr)	EU385 PTE (lbs/hr)	EU385 PTE (tons/yr)	EU386 PTE (lbs/yr)	EU386 PTE (lbs/hr)	EU386 PTE (tons/yr)	EU404 PTE (lbs/yr)	EU404 PTE (lbs/hr)	EU404 PTE (tons/yr)	EU413 PTE (lbs/yr)	EU413 PTE (lbs/hr)	EU413 PTE (tons/yr)
807	1.61448	0.404	807	1.61448	0.404	94.24	0.19	0.05	20.90	0.04	0.01
807	1.61448	0.404	807	1.61448	0.404	94.24	0.19	0.05	20.90	0.04	0.01
807	1.61448	0.404	807	1.61448	0.404	94.24	0.19	0.05	20.90	0.04	0.01
4	0.007812	0.002	4	0.007812	0.002	4.07	0.00813	0.002033	0.48	0.000958	0.000239
11,484	22.96728	5.742	11,484	22.96728	5.742	1790.48	3.58	0.90	281.28	0.56	0.14
937	1.87488	0.469	937	1.87488	0.469	44.35	0.09	0.02	281.28	0.56	0.14
2,474	4.9476	1.237	2,474	4.9476	1.237	1552.12	3.10	0.78	90.57	0.18	0.05
424,592	849.1836	212.3	424,592	849.1836	212.3	382646.3	765.3	191.3	38264.6	76.5	19.1
3	0.006889	0.002	3	0.006889	0.002	3.10	0.01	0.00	0.31	0.00	0.00
21	0.042185	0.011	21	0.042185	0.011	19.01	0.04	0.01	1.90	0.00	0.00
429,660	859.32	214.8	429,660	859.32	214.8	387213.8	774.4	193.6	38721.4	77.4	19.4
2	0.004859	0.001	2	0.004859	0.001	1.82	3.64E-03	9.11E-04	0.22	4.38E-04	1.09E-04
1	0.00213	0.001	1	0.00213	0.001	0.66	1.32E-03	3.30E-04	0.10	1.92E-04	4.80E-05
1	0.001484	0.000	1	0.001484	0.000	0.45	9.06E-04	2.26E-04	0.07	1.34E-04	3.34E-05
0	0.000204	0.000	0	0.000204	0.000	0.09	1.84E-04	4.59E-05	0.01	1.84E-05	4.59E-06
3	0.006145	0.002	3	0.006145	0.002	0.19	3.70E-04	9.26E-05	0.28	5.54E-04	1.38E-04
2	0.003995	0.001	2	0.003995	0.001	0.06	1.18E-04	2.96E-05	0.18	3.60E-04	9.00E-05
0	0.000482	0.000	0	0.000482	0.000	0.02	3.70E-05	9.25E-06	0.02	4.34E-05	1.09E-05
0	0.00046	0.000	0	0.00046	0.000	0.31	6.10E-04	1.53E-04	0.02	3.98E-05	9.95E-06
0	0.000875	0.000	0	0.000875	0.000						
10	0.020634	0.005	10	0.020634	0.005		7.57E-03	1.89E-03		1.82E-03	4.55E-04

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Table 10 - EU404/EQUI 671 Detailed PTE Calculations

Table 1. Emergency Generator Information

Equipment ID	Equipment	Process Area	Fuel	Quantity	Size (kW)	Size (hp)	Heat Input* (MMBtu/hr)	Operation (hrs/yr)
EU-404 - EQUI 671	Generator	Concentrator Building	Diesel	1	500	670.50	4.69	500

1. Heat input converted to hp (1 kW = 1.341 hp) and converted to MMBtu/hr based on AP-42 estimate of brake specific fuel consumption of 7000 Btu/hp-hr.

Table 2. Emergency Generator Criteria Pollutant Emissions

Pollutant	Emission Factors	Emission Factors	Emissions	
	(grams/kW-hr) ¹	(grams/hp-hr)	(lb/hr)	(tpy)
NOx (grams/hp-hr)	3.23	2.42	3.58	0.90
CO (grams/hp - hr)	2.8	2.10	3.10	0.78
VOC (grams/hp - hr) ²	0.08	0.06	0.09	0.02
PM (grams/hp - hr)	0.17	0.13	0.19	0.05
PM ₁₀ (grams/hp - hr)	0.17	0.13	0.19	0.05
PM _{2.5} (grams/hp - hr)	0.17	0.13	0.19	0.05
SO ₂ (grams/hp - hr) ³	N/A	0.01	0.01	0.002

1. Emission factors from EPA Engine Certification Data "nrci-cert-ghg-2016" certificate number GCPXL15.2NYS-002 (<https://www3.epa.gov/otaq/certdata.htm>)

2. NMHC value assumed to equal VOC

3. SO₂ emission factor from AP-42 Table 3.4-1. SO₂ = emission factor (lb/hp-hr)*sulfur fuel content* 453.592/g/lb = 8.09E-3 *0.0015*453.592

Table 3. Emergency Generator Hazardous Air Pollutant Emissions

Pollutant	Emission Factors	Emissions	
	(lb/MMBtu) ¹	(lb/hr)	(tpy)
Acenaphthene	4.68E-06	2.20E-05	5.49E-06
Acenaphthylene	9.23E-06	4.33E-05	1.08E-05
Acetaldehyde	2.52E-05	1.18E-04	2.96E-05
Acrolein	7.88E-06	3.70E-05	9.25E-06
Anthracene	1.23E-06	5.77E-06	1.44E-06
Benzene	7.76E-04	3.64E-03	9.11E-04
Benz(a)anthracene	6.22E-07	2.92E-06	7.30E-07
Benzo(a)pyrene	2.57E-07	1.21E-06	3.02E-07
Benzo(b)fluoranthene	1.11E-06	5.21E-06	1.30E-06
Benzo(g,h,i)perylene	5.56E-07	2.61E-06	6.52E-07
Chrysene	1.53E-06	7.18E-06	1.80E-06
Dibenzo(a,h)anthracene	3.46E-07	1.62E-06	4.06E-07
Fluoranthene	4.03E-06	1.89E-05	4.73E-06
Fluorene	1.28E-05	6.01E-05	1.50E-05
Formaldehyde	7.89E-05	3.70E-04	9.26E-05
Indeno(1,2,3-cd)pyrene	4.14E-07	1.94E-06	4.86E-07
Naphthalene	1.30E-04	6.10E-04	1.53E-04
Phenanthrene	4.08E-05	1.91E-04	4.79E-05
Pyrene	3.71E-06	1.74E-05	4.35E-06
Toluene	2.81E-04	1.32E-03	3.30E-04
Xylene (Total)	1.93E-04	9.06E-04	2.26E-04
1,3 - Butadiene	3.91E-05	1.84E-04	4.59E-05
Total HAPs	1.61E-03	7.57E-03	1.89E-03
CO ₂	1.63E+02	7.65E+02	1.91E+02
N ₂ O	1.32E-03	6.21E-03	1.55E-03
CH ₄	8.10E-03	3.80E-02	9.50E-03
CO ₂ e	1.65E+02	7.74E+02	1.94E+02

1. Emission factors are taken from AP-42 Chapter 3.4

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Pollutant	Emissions increase from the modification (tpy)	Limited emissions increase from the modification	Contemp. Increase or decrease	net increase	Significant thresholds	NSR review required?
NOx	0.90			0.90	40	no
CO	0.78			0.78	100	no
VOC ³ (ozone)	0.02			0.02	40	no
PM	0.05			0.05	25	no
PM ₁₀	0.05			0.05	15	no
PM _{2.5}	0.05			0.05	10	no
SO ₂	0.00			0.00	40	no
CO ₂ e	193.61			193.61	75000	no

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Table 11 - EU413/EQUI 672 Detailed PTE Calculations

Table 1. Emergency Generator Information

Equipment ID	Equipment	Process Area	Fuel	Quantity	Size (kW)	Size (BHP)	Heat Input ¹ (MMBtu/hr)	Operation (hrs/yr)
EU-413 - EQUI 672	Generator	Guard Shack	ULSD	1	50	79.00	0.47	500

1. Heat input converted to hp (1 kW = 1.341 hp) and converted to MMBtu/hr based on AP-42 estimate of brake specific fuel consumption of 7000 Btu/hp-hr.

Table 2. Emergency Generator Criteria Pollutant Emissions

	Emission Factors	Emission Factors	Emissions	
Pollutant	(grams/kW-hr) ¹	(grams/bhp-hr) ¹	(lb/hr)	(tpy)
NOx	4.33	3.23	0.56	0.14
CO	1.3	1.04	0.18	0.05
VOC ²	4.33	3.23	0.56	0.14
PM	0.32	0.24	0.04	0.01
PM ₁₀	0.32	0.24	0.04	0.01
PM _{2.5}	0.32	0.24	0.04	0.01
SO ₂ (grams/hp - hr) ³	N/A	0.01	0.00	0.000

1. Emission factors from Generac - Statement of Exhaust Emissions Data Sheet.
2. Conservative assumption that NOx + NMHC = NOx = VOC, based on Generac data sheet (NOx + NMHC)
3. SO₂ emission factor from AP-42 Table 3.4-1. SO₂ = emission factor (lb/hp-hr)*sulfur fuel content* 453.592g/lb = 8.09E-3 *0.0015*453.592

Table 3. Emergency Generator Hazardous Air Pollutant Emissions

Pollutant	Emission Factors	Emissions	
	(lb/MMBtu) ¹	(lb/hr)	(tpy)
Acenaphthene	1.42E-06	6.66E-07	1.67E-07
Acenaphthylene	5.06E-06	2.37E-06	5.94E-07
Acetaldehyde	7.67E-04	3.60E-04	9.00E-05
Acrolein	9.25E-05	4.34E-05	1.09E-05
Anthracene	1.87E-06	8.78E-07	2.19E-07
Benzene	9.33E-04	4.38E-04	1.09E-04
Benzo(a)anthracene	1.68E-06	7.89E-07	1.97E-07
Benzo(a)pyrene	1.88E-07	8.82E-08	2.21E-08
Benzo(b)fluoranthene	9.91E-08	4.65E-08	1.16E-08
Benzo(g,h,i)perylene	4.89E-07	2.30E-07	5.74E-08
Chrysene	3.53E-07	1.66E-07	4.14E-08
Dibenz(a,h)anthracene	5.83E-07	2.74E-07	6.84E-08
Fluoranthene	7.61E-06	3.57E-06	8.93E-07
Fluorene	2.92E-05	1.37E-05	3.43E-06
Formaldehyde	1.18E-03	5.54E-04	1.38E-04
Indeno(1,2,3-cd)pyrene	3.75E-07	1.76E-07	4.40E-08
Naphthalene	8.48E-05	3.98E-05	9.95E-06
Phenanthrene	2.94E-05	1.38E-05	3.45E-06
Pyrene	4.78E-06	2.24E-06	5.61E-07
Toluene	4.09E-04	1.92E-04	4.80E-05
Xylene (Total)	2.85E-04	1.34E-04	3.34E-05
1,3 - Butadiene	3.91E-05	1.84E-05	4.59E-06
Total HAPs	3.87E-03	1.82E-03	4.55E-04
CO ₂	1.63E+02	7.65E+01	1.91E+01
N ₂ O	1.32E-03	6.21E-04	1.55E-04
CH ₄	8.10E-03	3.80E-03	9.50E-04
CO ₂ e	1.65E+02	7.74E+01	1.94E+01

1. Emission factors are taken from AP-42 Chapter 3.3

IND20210001 Title I emissions summary

Pollutant	Emissions increase from the modification (tpy)	Limited emissions increase from the modification	Contemp. Increase or decrease	net increase	Significant thresholds	NSR review required?
NOx	0.14			0.14	40	no
CO	0.05			0.05	100	no
VOC ³ (ozone)	0.14			0.14	40	no
PM	0.01			0.01	25	no
PM ₁₀	0.01			0.01	15	no
PM _{2.5}	0.01			0.01	10	no
SO ₂	0.00			0.00	40	no
CO ₂ e	19.36			19.36	75000	no

Minntac 200kW Emergency Generator

Table 1. Emergency Generator Information

Equipment ID	Equipment	Process Area	Fuel	Quantity	Size (kW)	Size (BHP)	Heat Input ¹ (MMBtu/hr)	Operation (hrs/yr)
EQUI 703	Emergency Generator	Fire Hall	ULSD	1	200	268	1.88	500

1. Heat input converted to hp (1 kW = 1.341 hp) and converted to MMBtu/hr based on AP-42 estimate of brake specific fuel consumption of 7000 Btu/hp-hr.

Table 2. Emergency Generator Criteria Pollutant Emissions

Pollutant	Emission Factors (grams/kW-hr) ¹	Emission (grams/bhp-hr) ²	Emissions	
			(lb/hr)	(tpy)
NOx	3.73	2.74	1.62	0.41
CO	1.31	0.96	0.57	0.14
VOC ³	3.73	2.74	1.62	0.41
PM	0.18	0.13	0.08	0.02
PM ₁₀	0.18	0.13	0.08	0.02
PM _{2.5}	0.18	0.13	0.08	0.02
SO ₂ (grams/hp - hr) ⁴	N/A	0.01	0.003	0.0008

1. Emission factors from Caterpillar - D200 GC Diesel Generator Set

2. Assumed 1 gram/kW-hr = 0.735499 gram/bhp-hr

3. Conservative assumption that NOx + NMHC = NOx = VOC, based on Caterpillar data sheet (NOx + NMHC)

4. SO₂ emission factor from AP-42 Table 3.4-1. SO₂ = emission factor (lb/hp-hr)*sulfur fuel content* 453.592g/lb = 8.09E-3 *0.0015*453.592

Table 3. Emergency Generator Hazardous Air Pollutant Emissions

Pollutant	Emission Factors (lb/MMBtu) ¹	Emissions	
		(lb/hr)	(tpy)
Acenaphthene	1.42E-06	2.67E-06	6.66E-07
Acenaphthylene	5.06E-06	9.50E-06	2.37E-06
Acetaldehyde	7.67E-04	1.44E-03	3.60E-04
Acrolein	9.25E-05	1.74E-04	4.34E-05
Anthracene	1.87E-06	3.51E-06	8.78E-07
Benzene	9.33E-04	1.75E-03	4.38E-04
Benzo(a)anthracene	1.68E-06	3.15E-06	7.89E-07
Benzo(a)pyrene	1.88E-07	3.53E-07	8.82E-08
Benzo(b)fluoranthene	9.91E-08	1.86E-07	4.65E-08
Benzo(g,h,i)perylene	4.89E-07	9.18E-07	2.30E-07
Chrysene	3.53E-07	6.63E-07	1.66E-07
Dibenz(a,h)anthracene	5.83E-07	1.09E-06	2.74E-07
Fluoranthene	7.61E-06	1.43E-05	3.57E-06
Fluorene	2.92E-05	5.48E-05	1.37E-05
Formaldehyde	1.18E-03	2.22E-03	5.54E-04
Indeno(1,2,3-cd)pyrene	3.75E-07	7.04E-07	1.76E-07
Naphthalene	8.48E-05	1.59E-04	3.98E-05
Phenanthrene	2.94E-05	5.52E-05	1.38E-05
Pyrene	4.78E-06	8.97E-06	2.24E-06
Toluene	4.09E-04	7.68E-04	1.92E-04
Xylene (Total)	2.85E-04	5.35E-04	1.34E-04
Total HAP		7.20E-03	1.80E-03

1. Emission factors are taken from AP-42 Chapter 3.3

Table 4. Emergency Generator Greenhouse Gas Emissions

Pollutant	Emission Factors (lb/MMBtu) ¹	Emissions	
		(lb/hr)	(tpy)
CO ₂	163	306.12	76.53
N ₂ O	1.32E-03	2.48E-03	6.21E-04
CH ₄	0.01	1.52E-02	3.80E-03
CO ₂ e	165	307.24	76.81

¹ CO₂, CH₄, and NO₂ emission factor from Part 98 Table C-2 - Mandatory Greenhouse Gas Reporting. However, the emission factor for CO₂e from AP-42 was used for overall CO₂e values since the factor is

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Pollutant	Emissions increase from the modification (tpy)	Limited emissions increase from the modification	Contemp. Increase or decrease	net increase	Significant thresholds	NSR review required?
NOx	0.41			0.41	40	no
CO	0.14			0.14	100	no
VOC ³ (ozone)	0.41			0.41	40	no
PM	0.02			0.02	25	no
PM ₁₀	0.02			0.02	15	no
PM _{2.5}	0.02			0.02	10	no
SO ₂	0.00			0.00	40	no
CO ₂ e	76.81			76.81	75000	no

Minntac 500kW Emergency Generator*

Table 1. Emergency Generator Information

Equipment ID	Equipment	Process Area	Fuel	Quantity	Size (kW)	Size (BHP)	Heat Input ¹ (MMBtu/hr)	Operation (hrs/yr)
EQUI 706	Emergency Generator Step 2 Agglomerator		Ultra low sulfur diesel	1	500	671	4.69	500

1. Heat input converted to hp (1 kW = 1.341 hp) and converted to MMBtu/hr based on AP-42 estimate of brake specific fuel consumption of 7000 Btu/hp-hr.

Table 2. Emergency Generator Criteria Pollutant Emissions

Pollutant	Emission Factors	Emission Factors	Emissions	
	(grams/kW-hr) ¹	(grams/bhp-hr) ²	(lb/hr)	(tpy)
NOx	6.22	4.57	6.76	1.69
CO	0.85	0.63	0.92	0.23
VOC ³	0.03	0.02	0.03	0.01
PM	0.04	0.03	0.04	0.01
PM ₁₀	0.04	0.03	0.04	0.01
PM _{2.5}	0.04	0.03	0.04	0.01
SO ₂ (grams/hp - hr) ⁴	N/A	0.01	0.008	0.002

1. Emission factors from Caterpillar Model C15 D500 GC Diesel Generator Set

2. Assumed 1 gram/kW-hr = 0.735499 gram/bhp-hr

3. Assumption that hydrocarbons = VOC

4. SO₂ emission factor from AP-42 Table 3.4-1. SO₂ = emission factor (lb/hp-hr)*sulfur fuel content* 453.592g/lb = 8.09E-3 *0.0015*453.592

Table 3. Emergency Generator Hazardous Air Pollutant Emissions

Pollutant	Emission Factors	Emissions	
	(lb/MMBtu) ¹	(lb/hr)	(tpy)
Acenaphthene	1.42E-06	6.66E-06	1.67E-06
Acenaphthylene	5.06E-06	2.37E-05	5.94E-06
Acetaldehyde	7.67E-04	3.60E-03	9.00E-04
Acrolein	9.25E-05	4.34E-04	1.09E-04
Anthracene	1.87E-06	8.78E-06	2.19E-06
Benzene	9.33E-04	4.38E-03	1.09E-03
Benzo(a)anthracene	1.68E-06	7.89E-06	1.97E-06
Benzo(a)pyrene	1.88E-07	8.82E-07	2.21E-07
Benzo(b)fluoranthene	9.91E-08	4.65E-07	1.16E-07
Benzo(g,h,i)perylene	4.89E-07	2.30E-06	5.74E-07
Chrysene	3.53E-07	1.66E-06	4.14E-07
Dibenz(a,h)anthracene	5.83E-07	2.74E-06	6.84E-07
Fluoranthene	7.61E-06	3.57E-05	8.93E-06
Fluorene	2.92E-05	1.37E-04	3.43E-05
Formaldehyde	1.18E-03	5.54E-03	1.38E-03
Indeno(1,2,3-cd)pyrene	3.75E-07	1.76E-06	4.40E-07
Naphthalene	8.48E-05	3.98E-04	9.95E-05
Phenanthrene	2.94E-05	1.38E-04	3.45E-05
Pyrene	4.78E-06	2.24E-05	5.61E-06
Toluene	4.09E-04	1.92E-03	4.80E-04
Xylene (Total)	2.85E-04	1.34E-03	3.34E-04
Total HAP		1.80E-02	4.50E-03

1. Emission factors are taken from AP-42 Chapter 3.3

Table 4. Emergency Generator Greenhouse Gas Emissions

Pollutant	Emission Factors	Emissions	
	(lb/MMBtu) ¹	(lb/hr)	(tpy)
CO ₂	163	765.29	191.32
N ₂ O	1.32E-03	6.21E-03	1.55E-03
CH ₄	0.01	3.80E-02	9.50E-03
CO ₂ e	165	768.09	192.02

¹ CO₂, CH₄, and NO₂ emission factor from Part 98 Table C-2 - Mandatory Greenhouse Gas Reporting. However, the emission factor for CO₂e from AP-42 was used for overall CO₂e values since the factor is RICE specific.

*Note: Baseline emission calculations from existing emergency generator to be replaced (EQUI-274) were not included in emission estimates.

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Pollutant	Emissions increase from the modification (tpy)	Limited emissions increase from the modification	Contemp. Increase or decrease	net increase	Significant thresholds	NSR review required?
NOx	1.69			1.69	40	no
CO	0.23			0.23	100	no
VOC ³ (ozone)	0.01			0.01	40	no
PM	0.01			0.01	25	no
PM ₁₀	0.01			0.01	15	no
PM _{2.5}	0.01			0.01	10	no
SO ₂	0.00			0.00	40	no
CO ₂ e	192.02			192.02	75000	no

U. S. Steel Minntac - Title V Permit Renewal Application
Table 12 - Clean-up Materials PTE Calculations

EU420 - EQUI 676 Clean-up Materials
SV208 - STRU 263

Cleaner	Annual Usage (gals/yr)
Safety Kleen	2293.4
Clean Flex	880
Cortec VCI-418	808.5
Agresol Truck Wash	8820
Mineral Spirits	165
Toluene	330

Safety Kleen

Density 6.8 lbs/gal
Maximum Annual Usage 46785.36 lbs/yr

Pollutant	Composition	PTE (lbs/yr)	PTE (tons/yr)	Actual Emissions (lbs/yr)	Actual Emissions (tons/yr)
VOC	100%	46785	23.39	15595	7.80

Clean Flex

Density 9.16 lbs/gal
Maximum Annual usage 24182.4 lbs/yr

Pollutant	Composition	PTE (lbs/yr)	PTE (tons/yr)	Actual Emissions (lbs/yr)	Actual Emissions (tons/yr)
VOC	100%	24182	12.09	8061	4.03
2-Butoxyethanol	5%	1209	0.60	403	0.20

Cortec VCI-418 No VOC or HAP content according to manufacturer - phone call 6/5/07

Agresol Truck Wash

Density 8.78 lbs/gal
Maximum Annual usage 232318.8 lbs/yr

Pollutant	Composition	PTE (lbs/yr)	PTE (tons/yr)	Actual Emissions (lbs/yr)	Actual Emissions (tons/yr)
VOC	5%	11616	5.81	3872	1.94
2-Butoxyethanol	5%	11616	5.81	3872	1.94

Mineral Spirits

Density 6.44 lbs/gal
Maximum Annual usage 3187.8 lbs/yr

Pollutant	Composition	PTE (lbs/yr)	PTE (tons/yr)	Actual Emissions (lbs/yr)	Actual Emissions (tons/yr)
VOC	100%	3187.8	1.59	1063	0.53

Toluene

Density 7.24 lbs/gal
Maximum Annual usage 3620 lbs/yr

Pollutant	Composition	PTE (lbs/yr)	PTE (tons/yr)	Actual Emissions (lbs/yr)	Actual Emissions (tons/yr)
VOC	100%	3620	1.81	2389	1.19
Toluene	100%	3620	1.81	2389	1.19

Emissions Summary

Pollutant	PTE (lbs/hr)	PTE (tons/yr)	Actual Emissions (tons/yr)
VOC	10.20	44.70	15.49
2-Butoxyethanol	1.46	6.41	2.14
Toluene	0.41	1.81	1.19

* A scale-up factor of 3 was used to estimate the maximum annual usage of each material.

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Table 14 - Induration Combustion HAP PTE Calculations

Furnace Heat Input Capacity: 0.585 mmBtu/LT pellets
 Natural Gas [1] Fuel Oil [3] Coal [2]

Worst Case Emissions [4] Worst case no coal

Chemical Name	HAP	lb/mmBtu	lb/mmBtu	lb/ton coal	lb/LT pellets controlled	lb/LT pellets controlled
Acenaphthene	x	1.76E-09	1.51E-07	5.10E-07	8.82E-08	8.82E-08
Acenaphthylene	x	1.76E-09	1.81E-09	2.50E-07	7.80E-09	1.06E-09
Acetaldehyde	HAP			5.70E-04	1.78E-05	0.00E+00
Acetophenone	HAP			1.50E-05	4.68E-07	0.00E+00
Acrolein	HAP			2.90E-04	9.05E-06	0.00E+00
Anthracene	x	2.35E-09	8.71E-09	2.10E-07	6.56E-09	5.10E-09
Antimony Compounds	HAP			1.80E-05	5.62E-07	0.00E+00
Arsenic	HAP	1.96E-07		4.10E-04	1.28E-05	1.15E-07
Barium Compounds	x	4.31E-06			2.52E-06	2.52E-06
Benzene	HAP	2.06E-06	1.53E-06	1.30E-03	4.06E-05	1.20E-06
Benz(a)anthracene	x	1.76E-09	2.86E-08	8.00E-08	1.68E-08	1.68E-08
Benzo(a)pyrene	x	1.18E-09		3.80E-08	1.19E-09	6.88E-10
Benzo(b)fluoranthene	x	1.76E-09	1.06E-08	1.10E-07	6.18E-09	6.18E-09
Benzo(g,h,i)perylene	x	1.18E-09	1.61E-08	2.70E-08	9.44E-09	9.44E-09
Benzo(k)fluoranthene	x	1.76E-09	1.06E-08	1.10E-07	6.18E-09	6.18E-09
Benzyl chloride	HAP			7.00E-04	2.19E-05	0.00E+00
Beryllium Compounds	HAP	1.18E-08		2.10E-05	6.56E-07	6.88E-09
Biphenyl	HAP			1.70E-06	5.31E-08	0.00E+00
Bis(2-ethylhexyl)phthalate (DEHP)	HAP			7.30E-05	2.28E-06	0.00E+00
Bromoform	HAP			3.90E-05	1.22E-06	0.00E+00
Butane	x	2.06E-03			1.20E-03	1.20E-03
Cadmium Compounds	HAP	1.08E-06		5.10E-05	1.59E-06	6.31E-07
Carbon disulfide	HAP			1.30E-04	4.06E-06	0.00E+00
Chloroacetophenone (2-)	HAP			7.00E-06	2.19E-07	0.00E+00
Chlorobenzene	HAP			2.20E-05	6.87E-07	0.00E+00
Chloroform	HAP			5.90E-05	1.84E-06	0.00E+00
Chromium Compounds	HAP	1.37E-06	6.04E-06	2.60E-04	8.12E-06	3.53E-06
Chromium total	x		6.04E-06	2.60E-04	8.12E-06	3.53E-06
Chromium (III)	x			2.60E-04	8.12E-06	0.00E+00
Chrysene	x	1.76E-09	1.70E-08	1.00E-07	9.95E-09	9.95E-09
Cobalt Compounds	HAP	8.24E-08		1.00E-04	3.12E-06	4.82E-08
Cumene	HAP			5.30E-06	1.65E-07	0.00E+00
Cyanide	HAP			2.50E-03	7.80E-05	0.00E+00
Dibenz(a,h)anthracene	x	1.18E-09	1.19E-08		6.98E-09	6.98E-09
Dichlorobenzenes	x	1.18E-06			6.88E-07	6.88E-07
Dimethylbenzo(a)anthracene, 7,	x	1.57E-08			9.18E-09	9.18E-09
Dimethyl sulfate	HAP			4.80E-05	1.50E-06	0.00E+00
Dinitrotoluene 2,4	HAP			2.80E-07	8.74E-09	0.00E+00
Ethyl benzene	HAP		4.54E-07	9.40E-05	2.93E-06	2.66E-07
Ethyl chloride	HAP			4.20E-05	1.31E-06	0.00E+00
ethylene dibromide	HAP			1.20E-06	3.75E-08	0.00E+00
ethylene dichloride	HAP			4.00E-05	1.25E-06	0.00E+00
Fluoranthene	x	2.94E-09	3.46E-08	7.10E-07	2.22E-08	2.02E-08
Fluorene	x	2.75E-09	3.19E-08	9.10E-07	2.84E-08	1.87E-08
Formaldehyde	HAP	7.35E-05	2.36E-04	2.40E-04	1.38E-04	1.38E-04

Hexane	HAP	1.76E-03		6.70E-05	1.03E-03	1.03E-03
Hydrogen Chloride (as Cl)	HAP			1.2	3.75E-02	0.00E+00
Hydrogen Fluoride (as F)	HAP			0.15	4.68E-03	0.00E+00
Indeno(1,2,3-cd)pyrene	x	1.76E-09	1.53E-08	6.10E-08	8.94E-09	8.94E-09
Isophorone	HAP			5.80E-04	1.81E-05	0.00E+00
Lead	HAP			4.20E-04	1.31E-05	0.00E+00
Magnesium Compounds	x			1.10E-02	3.43E-04	0.00E+00
Manganese	HAP	3.73E-07		4.90E-04	1.53E-05	2.18E-07
Mercury Compounds	HAP	2.55E-07		8.30E-05	2.59E-06	1.49E-07
Methyl bromide	HAP			1.60E-04	5.00E-06	0.00E+00
Methyl chloride	HAP			5.30E-04	1.65E-05	0.00E+00
Methyl chrysene 5	x			2.20E-08	6.87E-10	0.00E+00
Methylcholanthrene, 3-	x	1.76E-09			1.03E-09	1.03E-09
Methyl ethyl ketone	HAP			3.90E-04	1.22E-05	0.00E+00
Methyl hydrazine	HAP			1.70E-04	5.31E-06	0.00E+00
Methyl methacrylate	HAP			2.00E-05	6.24E-07	0.00E+00
Methyl tert butyl ether	HAP			3.50E-05	1.09E-06	0.00E+00
Methylene chloride	HAP			2.90E-04	9.05E-06	0.00E+00
Methylnapthalene, 2-	x	2.35E-08			1.38E-08	1.38E-08
Naphthalene	HAP	5.98E-07	8.07E-06	1.30E-05	4.72E-06	4.72E-06
Nickel Compounds	HAP	2.06E-06		2.80E-04	8.74E-06	1.20E-06
Phenanthrene	x	1.67E-08	7.50E-08	2.70E-06	8.43E-08	4.39E-08
Phenol	HAP			1.60E-05	5.00E-07	0.00E+00
Propane	x	1.57E-03			9.18E-04	9.18E-04
Propionaldehyde	HAP			3.80E-04	1.19E-05	0.00E+00
Pyrene	x	4.90E-09	3.04E-08	3.30E-07	1.78E-08	1.78E-08
Selenium Compounds	HAP	2.35E-08		1.30E-03	4.06E-05	1.38E-08
Styrene	HAP			2.50E-05	7.80E-07	0.00E+00
Tetrachloroethylene	HAP			4.30E-05	1.34E-06	0.00E+00
Toluene	HAP	3.33E-06	4.43E-05	2.40E-04	2.59E-05	2.59E-05
Trichloroethane, 1,1,1	HAP		1.69E-06	2.00E-05	9.86E-07	9.86E-07
Vinyl acetate	HAP			7.60E-06	2.37E-07	0.00E+00
Xylene	HAP		7.79E-07	3.70E-05	1.16E-06	4.55E-07
Polycyclic Organic Material	HAP	8.65E-08		6.24E-05	1.95E-06	5.06E-08
Total HAP					4.37E-02	4.37E-02

References:

- [1] Natural Gas combustion emission factors are from AP-42 Table 1.4-3 and 1.4-4.
To convert from lb/10⁶ scf to lb/MMBtu, divide by 1020.
Several pollutants are HAPs because they are a polycyclic organic matter (POM).
Coal emission factors based on AP-42 Section 1.1, Bituminous and Subbituminous coal
- [2] combustion
Table 1.1-14 (HAPs), Table 1.1-17 (POM), Table 1.1-15 (HCl), Table 1.1-13 (PAHs),
Table 1.1-18 (Trace Metals)
Coal is 9369 Btu/ lb coal. Based on Keetac sample data from 10/1/2005 - 2/2/2007.
- [3] Fuel oil emission factors from AP-42 Table 1.3-9.
- [4] Worst-case emission between each fuel type used.
- [5] Combustion HAPs are not considered controlled.

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Table 15 - Dioxin/F PTE Calculations

Compound	Emission Factor			Toxic Equivalency Adjusted Value	Toxic Equivalency Factors	Notes
	Value	lb/ton coal	lb/ton pellets			
2,3,7,8-TCDD	1.43	lb/ton x E-11	4.46E-13	1.43	lb/hr x E-11	[1]
PCDD, Total	66.6	lb/ton x E-11	2.08E-11	66.6	lb/ton x E-11	[1]
PCDF, Total	109	lb/ton x E-11	3.40E-11	35.97	lb/ton x E-11	[2]
TCDD, Total	9.28	lb/ton x E-11	2.90E-12	0	lb/ton x E-11	[3]
PeCDD, Total	4.47	lb/ton x E-11	1.40E-12	0	lb/ton x E-11	[3]
HxCDD, Total	2.87	lb/ton x E-11	8.96E-13	0	lb/ton x E-11	[3]
HpCDD, Total	8.34	lb/ton x E-11	2.60E-12	0	lb/ton x E-11	[3]
OCDD	41.6	lb/ton x E-11	1.30E-11	0.01248	lb/hr x E-11	[3]
2,3,7,8-TCDF	5.10	lb/ton x E-11	1.59E-12	0.51	lb/hr x E-11	[4]
TCDF, Total	40.4	lb/ton x E-11	1.26E-11	0	lb/ton x E-11	[4]
PeCDF, Total	35.3	lb/ton x E-11	1.10E-11	0	lb/ton x E-11	[4]
HxCDF, Total	19.2	lb/ton x E-11	5.99E-12	0	lb/ton x E-11	[4]
HpCDF, Total	7.68	lb/ton x E-11	2.40E-12	0	lb/ton x E-11	[4]
OCDF	6.63	lb/ton x E-11	2.07E-12	0.001989	lb/hr x E-11	[4]
TEQDF-WHO'05	1.04E-09 lb/hr					[5]

References:

- [1] TEF developed by World Health Organization (Van den Bert et al. 2005)
[2] TEF for Total PCDF is the sum of the TEF for 1,2,3,7,8-PCDF (TEF-WHO'05 = 0.03) and 2,3,4,7,8-PCDF (TEF-WHO'05 = 0.3)
[3] Compound is included in Total PCDD.
[4] Compound is included in Total PCDF.
[5] TEQDF-WHO'05 - Calculated using the following equation developed by the World Health Organization (Van den Bert et al. 2005):

$$TEQDF - WHO'05 = \sum_{i=1}^{i=n} (C_i \times TEF_i)$$

- [6] Emission Factors based on AP-42 Table 1.1-12, Dioxins and Furans from coal combustion. Lb/ ton coal
conversion from lb/ton coal to lb/ton pellets is equivalent to method used in 'Combustion HAPs' tab.
0.585 mmBtu/ton pellets fired. 9369 Btu/lb coal. 2000 lb/ton. 10⁶ Btu/mmBtu.

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Table 16 - Induration References

[1] Detailed Greenhouse Gas Emission Factors can be viewed on the "PTE Induration Furn. Subpart Q" tab of this spreadsheet.

[2] Maximum Throughput Rate and Stack Vent Data for the Line 3 through Line 7 Indurating Furnace Grate Kilns:

Parameter	Line 3 - STRU225 - SV103	Line 4 - STRU208 - SV118	Line 5 - STRU60 - SV127	Line 6 - STRU155 - SV144	Line 7 - STRU69 - SV151
Heat Required (BTU/LT)	585,000	420,000	420,000	420,000	420,000
Max Production (LT/hr)	240	436	436	436	436
Heat Input (MMBTU/hr)	140.4	183.12	183.12	183.12	183.12
Fluxstone Ratio (lb/LT)	0	0	0	0	0
Avg Fluxstone Use (ton/hr)	0	0	0	0	0
Operating Hours (hr/yr)	8,760	8,760	8,760	8,760	8,760
Air Flow (ACFM)	451,565	640,000	640,000	520,000	520,000
Exit Temp (F)	210	150	150	150	150
Air Flow (DSCFM)	355,860	436,000	437,250	364,400	370,222

[3] Natural Gas HAP combustion emission factors are from AP-42 Table 1.4-3 and 1.4-4. See the "Combustion HAPs" tab for additional details.

[4] Refer to the 'PM_PM10_PM2.5' tab for additional details on emission factor and control efficiency source information.

[5] The SAM emission factor is from a source test conducted on L6 on April 4, 2018.

[6] Induration HAP emission factors for Line 3 are based the worst-case stack test results from the May 17-18, 2022 stack test on Line 5 and the May 19-20, 2022 stack test on Line 7. All emission factors have an added safety factor of 120% to account for uncertainty from the results of only one performance test.

[7] Induration HAP emission factors for Line 4/5 are based on stack test data from a test on the Line 5 Waste Gas Stack on May 17-18, 2022. All emission factors have an added safety factor of 120% to account for uncertainty from the results of only one performance test.

Safety factor:	1.2

[8] Induration HAP emission factors for Line 6/7 are based on stack test data from a test on the Line 7 Waste Gas Stack on May 19-20, 2022. All emission factors have an added safety factor of 120% to account for uncertainty from the results of only one performance test.

Safety factor:	1.2

[9] Emission factors for Natural Gas/Coal Combustion HAP emissions are located in the 'combustion HAPs' tab. The spreadsheet evaluated each fuel type and determined a worst case emission factor for each pollutant. The locations of emission factors are identified in the tab, emission factors are primarily from AP-42.

[10] Emission factors and supporting references for Dioxin emissions can be viewed on the 'Dioxins' tab.

[11] Mercury emission factors are the worst-case factors from the 2015, 2020, and 2022 source testing which was conducted on Line 3, Line 4/5, and Line 6/7. The worst case for lines 4/5 is from the April 28-30, 2020 stack testing. The worst case for lines 6/7 is from the May 2022 testing. The worst case for line 3 is conservatively assumed to be the greater of the line 4/5 and 6/7 factors, which is 6/7 factor. The U. S. Steel Keetac facility established a 30% wet scrubber mercury control efficiency per the facility Title V permit issued February 2, 2005. The 30% applies only to Line 3, which removes its scrubber solids completely from the process similar to Keetac. Minntac assumes no mercury control efficiency for Lines 4 – 7 because scrubber solids are not removed from the process.

[12] Analysis of 2009 - 2019 performance test results performed by Hongming Jiang, MPCA. MPCA developed emission factors for CO, VOC, and Fluoride emissions by taking the 3-run average of recent performance tests for each furnace and generating a 95% UPL. The 95% UPL represents an emission factor that each furnace would be predicted to be below during 95 out of 100 performance tests using a 3-run average.

[13] 99% UPLs using CEMS data for each furnace (same dataset provided to MPCA). All CEMS datasets are non-parametric (i.e., skewed). USS used EPA's ProUCL USS calculated UPLs on a lb/hr basis.

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Table 13 - Induration Waste Gas Stacks PTE Calculations

EQUI	EU	SV	STRU	Facility Designation	Pollutant	Pollutant Look up	HAP	Maximum		Stack	Emission Factors			Reference	Pollution Control Efficiency	Uncontrolled Emissions		Controlled/Limited Emissions	
						(Hide Column)		Rate	Units		Flowrate 2	dscfm	EF			EF Units	Source	lb/hr	ton/yr
Line 3 Waste Gas Stack																			
EQUI 146	EU225	SV103	STRU 225	L3 Waste Gas Stack	PM	PM		240	long tons/hour	355860	0.0149	gr/dscf	MACT	[4]	97.1	1570	6.879	45.45	199.06
EQUI 146	EU225	SV103	STRU 225	L3 Waste Gas Stack	PM10	PM10		240	long tons/hour	355860	0.0157	gr/dscf	Varies	[4]	91.5	565	2.476	47.78	209.27
EQUI 146	EU225	SV103	STRU 225	L3 Waste Gas Stack	PM2.5	PM2.5		240	long tons/hour	355860	0.0131	gr/dscf	Varies	[4]	86.1	286	1.252	39.83	174.46
EQUI 146	EU225	SV103	STRU 225	L3 Waste Gas Stack	PM Cond	PM Cond		240	long tons/hour	355860	0.004	gr/dscf	P. Test	[4]	0	12.51	54.78	12.51	54.78
EQUI 146	EU225	SV103	STRU 225	L3 Waste Gas Stack	CO	CO		240	long tons/hour	355860	0.096	lb/long ton	P. Test	[12]	0	23.1	101.2	23.1	101.2
EQUI 146	EU225	SV103	STRU 225	L3 Waste Gas Stack	NOx	NOx		240	long tons/hour	355860	N/A	N/A	CEMS data	[13]	0	625	2.736	625	COMG 37
EQUI 146	EU225	SV103	STRU 225	L3 Waste Gas Stack	VOC	VOC		240	long tons/hour	355860	0.025	lb/ton	P. Test	[12]	0	5.9	26.1	5.9	26.1
EQUI 146	EU225	SV103	STRU 225	L3 Waste Gas Stack	SO2	SOx		240	long tons/hour	355860	N/A	N/A	CEMS data	[13]	30	204	895	143	626
EQUI 146	EU225	SV103	STRU 225	L3 Waste Gas Stack	Sulfuric Acid Mist (SAM)	Sulfuric Acid Mist (SAM)		240	long tons/hour	355860	3.24E-04	lb/long ton	P. Test	[5]	0	7.76E-02	3.40E-01	7.76E-02	3.40E-01
EQUI 146	EU225	SV103	STRU 225	L3 Waste Gas Stack	CO2	CO2		240	long tons/hour	355860	--	--	--	[1]	0	59,363	260,012	59,363.4	260,012
EQUI 146	EU225	SV103	STRU 225	L3 Waste Gas Stack	CH4	CH4		240	long tons/hour	355860	--	--	--	[1]	0	9.7	42.6	9.7	42.6
EQUI 146	EU225	SV103	STRU 225	L3 Waste Gas Stack	N2O	N2O		240	long tons/hour	355860	--	--	--	[1]	0	1.3	5.6	1.3	5.6
EQUI 146	EU225	SV103	STRU 225	L3 Waste Gas Stack	CO2e	CO2e		240	long tons/hour	355860	--	--	--	[1]	0	59,963	262,638	59,963.1	262,638
Induration HAP Emissions																			
EQUI 146	EU225	SV103	STRU 225	L3 Waste Gas Stack	Antimony (Sb)	Antimony	Y	240	long tons/hour	355860	1.80E-07	lb/long ton	P. Test	[6]	0	4.32E-05	1.89E-04	4.32E-05	1.89E-04
EQUI 146	EU225	SV103	STRU 225	L3 Waste Gas Stack	Arsenic (As)	Arsenic	Y	240	long tons/hour	355860	1.80E-04	lb/long ton	P. Test	[6]	0	4.32E-02	1.89E-01	4.32E-02	1.89E-01
EQUI 146	EU225	SV103	STRU 225	L3 Waste Gas Stack	Beryllium (Be)	Beryllium	Y	240	long tons/hour	355860	6.55E-07	lb/long ton	P. Test	[6]	0	1.57E-04	6.89E-04	1.57E-04	6.89E-04
EQUI 146	EU225	SV103	STRU 225	L3 Waste Gas Stack	Cadmium (Cd)	Cadmium	Y	240	long tons/hour	355860	9.96E-07	lb/long ton	P. Test	[6]	0	2.39E-04	1.05E-03	2.39E-04	1.05E-03
EQUI 146	EU225	SV103	STRU 225	L3 Waste Gas Stack	Chromium (Cr)	Chromium	Y	240	long tons/hour	355860	2.40E-05	lb/long ton	P. Test	[6]	0	5.76E-03	2.52E-02	5.76E-03	2.52E-02
EQUI 146	EU225	SV103	STRU 225	L3 Waste Gas Stack	Cobalt (Co)	Cobalt	Y	240	long tons/hour	355860	8.40E-07	lb/long ton	P. Test	[6]	0	2.02E-04	8.83E-04	2.02E-04	8.83E-04
EQUI 146	EU225	SV103	STRU 225	L3 Waste Gas Stack	Lead	Lead	Y	240	long tons/hour	355860	9.24E-05	lb/long ton	P. Test	[6]	0	2.22E-02	9.71E-02	2.22E-02	9.71E-02
EQUI 146	EU225	SV103	STRU 225	L3 Waste Gas Stack	Manganese (Mn)	Manganese	Y	240	long tons/hour	355860	7.44E-05	lb/long ton	P. Test	[6]	0	1.79E-02	7.82E-02	1.79E-02	7.82E-02
EQUI 146	EU225	SV103	STRU 225	L3 Waste Gas Stack	Mercury	Mercury	Y	240	long tons/hour	355860	1.94E-05	lb/long ton	P. Test	[11]	30	6.67E-03	2.92E-02	4.67E-03	2.04E-02
EQUI 146	EU225	SV103	STRU 225	L3 Waste Gas Stack	Nickel (Ni)	Nickel	Y	240	long tons/hour	355860	9.12E-06	lb/long ton	P. Test	[6]	0	2.19E-03	9.59E-03	2.19E-03	9.59E-03
EQUI 146	EU225	SV103	STRU 225	L3 Waste Gas Stack	Phosphorus (P)	Phosphorus	Y	240	long tons/hour	355860	3.84E-05	lb/long ton	P. Test	[6]	0	9.22E-03	4.04E-02	9.22E-03	4.04E-02
EQUI 146	EU225	SV103	STRU 225	L3 Waste Gas Stack	Selenium (Se)	Selenium	Y	240	long tons/hour	355860	2.52E-05	lb/long ton	P. Test	[6]	0	6.05E-03	2.65E-02	6.05E-03	2.65E-02
EQUI 146	EU225	SV103	STRU 225	L3 Waste Gas Stack	Hydrogen Chloride	Hydrogen Chloride	Y	240	long tons/hour	355860	1.80E-03	lb/long ton	P. Test	[6]	0	4.03E-01	1.77E+00	4.03E-01	1.77E+00
EQUI 146	EU225	SV103	STRU 225	L3 Waste Gas Stack	Hydrogen Fluoride	Hydrogen Fluoride	Y	240	long tons/hour	355860	5.04E-03	lb/long ton	P. Test	[6]	0	1.38E-02	6.05E-02	1.38E-02	6.05E-02
EQUI 146	EU225	SV103	STRU 225	L3 Waste Gas Stack	Fluorides	Fluorides		240	long tons/hour	355860	3.51E-03	lb/long ton	P. Test	[12]	0	8.42E-01	3.69E+00	8.42E-01	3.69E+00
Combustion HAP Emissions																			
EQUI 146	EU225	SV103	STRU 225	L3 Waste Gas Stack	Acenaphthene	Acenaphthene		240	long tons/hour	364400	8.82E-08	lb/long ton	Comb HAP	[9]	0	2.37E-05	1.04E-04	2.37E-05	1.04E-04
EQUI 146	EU225	SV103	STRU 225	L3 Waste Gas Stack	Acenaphthylene	Acenaphthylene		240	long tons/hour	364400	1.06E-09	lb/long ton	Comb HAP	[9]	0	2.84E-07	1.24E-06	2.84E-07	1.24E-06
EQUI 146	EU225	SV103	STRU 225	L3 Waste Gas Stack	Anthracene	Anthracene		240	long tons/hour	364400	5.10E-09	lb/long ton	Comb HAP	[9]	0	1.37E-06	6.00E-06	1.37E-06	6.00E-06
EQUI 146	EU225	SV103	STRU 225	L3 Waste Gas Stack	Barium Compounds	Barium Compounds		240	long tons/hour	364400	2.52E-06	lb/long ton	Comb HAP	[9]	0	6.78E-04	2.97E-03	6.78E-04	2.97E-03
EQUI 146	EU225	SV103	STRU 225	L3 Waste Gas Stack	Benzene	Benzene	Y	240	long tons/hour	364400	1.20E-06	lb/long ton	Comb HAP	[9]	0	3.24E-04	1.42E-03	3.24E-04	1.42E-03
EQUI 146	EU225	SV103	STRU 225	L3 Waste Gas Stack	Benzo(a)anthracene	Benzo(a)anthracene		240	long tons/hour	364400	1.68E-08	lb/long ton	Comb HAP	[9]	0	4.50E-06	1.97E-05	4.50E-06	1.97E-05
EQUI 146	EU225	SV103	STRU 225	L3 Waste Gas Stack	Benzo(a)pyrene	Benzo(a)pyrene		240	long tons/hour	364400	6.88E-10	lb/long ton	Comb HAP	[9]	0	1.85E-07	8.10E-07	1.85E-07	8.10E-07
EQUI 146	EU225	SV103	STRU 225	L3 Waste Gas Stack	Benzo(b)fluoranthene	Benzo(b)fluoranthene		240	long tons/hour	364400	6.18E-09	lb/long ton	Comb HAP	[9]	0	1.66E-06	7.28E-06	1.66E-06	7.28E-06
EQUI 146	EU225	SV103	STRU 225	L3 Waste Gas Stack	Benzo(g,h,i)perylene	Benzo(g,h,i)perylene		240	long tons/hour	364400	9.44E-09	lb/long ton	Comb HAP	[9]	0	2.54E-06	1.11E-05	2.54E-06	1.11E-05
EQUI 146	EU225	SV103	STRU 225	L3 Waste Gas Stack	Benzo(k)fluoranthene	Benzo(k)fluoranthene		240	long tons/hour	364400	6.18E-09	lb/long ton	Comb HAP	[9]	0	1.66E-06	7.28E-06	1.66E-06	7.28E-06
EQUI 146	EU225	SV103	STRU 225	L3 Waste Gas Stack	Butane	Butane		240	long tons/hour	364400	1.20E-03	lb/long ton	Comb HAP	[9]	0	3.24E-01	1.42E+00	3.24E-01	1.42E+00
EQUI 146	EU225	SV103	STRU 225	L3 Waste Gas Stack	Chrysene	Chrysene		240	long tons/hour	364400	9.95E-09	lb/long ton	Comb HAP	[9]	0	2.67E-06	1.17E-05	2.67E-06	1.17E-05
EQUI 146	EU225	SV103	STRU 225	L3 Waste Gas Stack	Dibenz(a,h)anthracene	Dibenz(a,h)anthracene		240	long tons/hour	364400	6.98E-09	lb/long ton	Comb HAP	[9]	0	1.88E-06	8.22E-06	1.88E-06	8.22E-06
EQUI 146	EU225	SV103	STRU 225	L3 Waste Gas Stack	Dichlorobenzenes	Dichlorobenzenes	Y	240	long tons/hour	364400	6.88E-07	lb/long ton	Comb HAP	[9]	0	1.85E-04	8.10E-04	1.85E-04	8.10E-04
EQUI 146	EU225	SV103	STRU 225	L3 Waste Gas Stack	Dimethylbenzo(a)anthracene, 7	Dimethylbenzo(a)anthracene, 7		240	long tons/hour	364400	9.18E-09	lb/long ton	Comb HAP	[9]	0	2.47E-06	1.08E-05	2.47E-06	1.08E-05
EQUI 146	EU225	SV103	STRU 225	L3 Waste Gas Stack	Ethyl benzene	Ethylbenzene	Y	240	long tons/hour	364400	2.66E-07	lb/long ton	Comb HAP	[9]	0	7.14E-05	3.13E-04	7.14E-05	3.13E-04
EQUI 146	EU225	SV103	STRU 225	L3 Waste Gas Stack	Fluoranthene	Fluoranthene		240	long tons/hour	364400	2.02E-08	lb/long ton	Comb HAP	[9]	0	5.44E-06	2.38E-05	5.44E-06	2.38E-05
EQUI 146	EU225	SV103	STRU 225	L3 Waste Gas Stack	Fluorene	Fluorene		240	long tons/hour	364400	1.87E-08	lb/long ton	Comb HAP	[9]	0	5.02E-06	2.20E-05	5.02E-06	2.20E-05
EQUI 146	EU225	SV103	STRU 225	L3 Waste Gas Stack	Formaldehyde	Formaldehyde	Y	240	long tons/hour	364400	1.38E-04	lb/long ton	Comb HAP	[9]	0	3.71E-02	1.62E-01	3.71E-02	1.62E-01
EQUI 146	EU225	SV103	STRU 225	L3 Waste Gas Stack	Hexane	Hexane	Y	240	long tons/hour	364400	1.03E-03	lb/long ton	Comb HAP	[9]	0	2.77E-01	1.22E+00	2.77E-01	1.22E+00
EQUI 146	EU225	SV103	STRU 225	L3 Waste Gas Stack	Indeno(1,2,3-cd)pyrene	Indeno(1,2,3-cd)pyrene		240	long tons/hour	364400	8.94E-09	lb/long ton	Comb HAP	[9]	0	2.40E-06	1.05E-05	2.40E-06	1.05E-05
EQUI 146	EU225	SV103	STRU 225	L3 Waste Gas Stack	Methylcholanthrene, 3-	Methylcholanthrene, 3-		240	long tons/hour	364400	1.03E-09	lb/long ton	Comb HAP	[9]	0	2.77E-07	1.22E-06	2.77E-07	1.22E-06
EQUI 146	EU225	SV103	STRU 225	L3 Waste Gas Stack	Methylnapthalene, 2-	Methylnapthalene, 2-		240	long tons/hour	364400	1.38E-08	lb/long ton	Comb HAP	[9]	0	3.70E-06	1.62E-05	3.70E-06	1.62E-05
EQUI 146	EU225	SV103	STRU 225	L3 Waste Gas Stack	Naphthalene	Naphthalene	Y	240	long tons/hour	364400	4.72E-06	lb/long ton	Comb HAP	[9]	0	1.27E-03	5.56E-03	1.27E-03	5.56E-03
EQUI 146	EU225	SV103	STRU 225	L3 Waste Gas Stack	Phenanthrene	Phenanthrene		240	long tons/hour	364400	4.39E-08	lb/long ton	Comb HAP	[9]	0	1.18E-05	5.17E-05	1.18E-05	5.17E-05
EQUI 146	EU225	SV103	STRU 225	L3 Waste Gas Stack	Propane	Propane		240	long tons/hour	364400	9.18E-04	lb/long ton	Comb HAP	[9]	0	2.47E-01	1.08E+00	2.47E-01	1.08E+00
EQUI 146	EU225	SV103	STRU 225	L3 Waste Gas Stack	Pyrene	Pyrene		240	long tons/hour	364400	1.78E-08	lb/long ton	Comb HAP	[9]	0	4.77E-06	2.09E-05	4.77E-06	2.09E-05
EQUI 146	EU225	SV103	STRU 225	L3 Waste Gas Stack	Toluene	Toluene	Y	240	long tons/hour	364400	2.59E-05	lb/long ton	Comb HAP</						

EQUI 146	EU225	SV103	STRU 225	L3 Waste Gas Stack	Xylene		Xylene	Y	240	long tons/hour	364400	4.55E-07	lb/long ton	Comb HAP	[9]	0	1.22E-04	5.36E-04	1.22E-04	5.36E-04
EQUI 146	EU225	SV103	STRU 225	L3 Waste Gas Stack	Polycyclic Organic Material		POM	Y	240	long tons/hour	364400	5.06E-08	lb/long ton	Comb HAP	[9]	0	1.36E-05	5.96E-05	1.36E-05	5.96E-05
EQUI 146	EU225	SV103	STRU 225	L3 Waste Gas Stack	Total HAP		Total HAPs		240	long tons/hour	364400	--	--	--	--	0	0.85	3.74	0.85	3.73
Line 4 Waste Gas Stack																				
EQUI 279	EU261	SV118	STRU 208	L4 Waste Gas Stack	PM		PM		436	long tons/hour	436000	0.0149	gr/dscf	MACT	[4]	97.1	1924	8,428	55.68	243.89
EQUI 279	EU261	SV118	STRU 208	L4 Waste Gas Stack	PM10		PM10		436	long tons/hour	436000	0.0164	gr/dscf	Varies	[4]	91.2	695	3,045	61.15	267.85
EQUI 279	EU261	SV118	STRU 208	L4 Waste Gas Stack	PM2.5		PM2.5		436	long tons/hour	436000	0.0138	gr/dscf	Varies	[4]	85.4	353	1,545	51.42	225.21
EQUI 279	EU261	SV118	STRU 208	L4 Waste Gas Stack	PM Cond		PM Cond		436	long tons/hour	436000	0.005	gr/dscf	P. Test	[4]	0	17.94	78.57	17.94	78.57
EQUI 279	EU261	SV118	STRU 208	L4 Waste Gas Stack	CO		CO		436	long tons/hour	436000	0.2660	lb/long ton	P. Test	[12]	0	116.0	508.0	116.0	508.0
EQUI 279	EU261	SV118	STRU 208	L4 Waste Gas Stack	NOx		NOx		436	long tons/hour	436000	N/A	N/A	CEMS data	[13]	0	692	3,030	692	COMG 37
EQUI 279	EU261	SV118	STRU 208	L4 Waste Gas Stack	VOC		VOC		436	long tons/hour	436000	0.0255	lb/long ton	P. Test	[12]	0	11.1	48.7	11.1	48.7
EQUI 279	EU261	SV118	STRU 208	L4 Waste Gas Stack	SO2		Sox		436	long tons/hour	436000	N/A	N/A	CEMS data	[13]	30	175	765	122	535
EQUI 279	EU261	SV118	STRU 208	L4 Waste Gas Stack	Sulfuric Acid Mist (SAM)		Sulfuric Acid Mist (SAM)		436	long tons/hour	436000	3.24E-04	lb/long ton	P. Test	[5]	0	1.41E-01	6.18E-01	1.41E-01	6.18E-01
EQUI 279	EU261	SV118	STRU 208	L4 Waste Gas Stack	CO2		CO2		436	long tons/hour	436000	--	--	--	[1]	0	89,920	393,848	89,919.7	393,848
EQUI 279	EU261	SV118	STRU 208	L4 Waste Gas Stack	CH4		CH4		436	long tons/hour	436000	--	--	--	[1]	0	12.7	55.5	12.7	55.5
EQUI 279	EU261	SV118	STRU 208	L4 Waste Gas Stack	N2O		N2O		436	long tons/hour	436000	--	--	--	[1]	0	1.3	5.8	1.3	5.8
EQUI 279	EU261	SV118	STRU 208	L4 Waste Gas Stack	CO2e		CO2e		436	long tons/hour	436000	--	--	--	[1]	0	90,596	396,810	90,595.9	396,810
EQUI 279	EU261	SV118	STRU 208	L4 Waste Gas Stack	Induration HAP Emissions															
EQUI 279	EU261	SV118	STRU 208	L4 Waste Gas Stack	Antimony (Sb)		Antimony	Y	436	long tons/hour	436000	1.44E-07	lb/long ton	P. Test	[7]	0	6.28E-05	2.75E-04	6.28E-05	2.75E-04
EQUI 279	EU261	SV118	STRU 208	L4 Waste Gas Stack	Arsenic (As)		Arsenic	Y	436	long tons/hour	436000	1.12E-05	lb/long ton	P. Test	[7]	0	4.87E-03	2.13E-02	4.87E-03	2.13E-02
EQUI 279	EU261	SV118	STRU 208	L4 Waste Gas Stack	Beryllium (Be)		Beryllium	Y	436	long tons/hour	436000	2.28E-07	lb/long ton	P. Test	[7]	0	9.94E-05	4.35E-04	9.94E-05	4.35E-04
EQUI 279	EU261	SV118	STRU 208	L4 Waste Gas Stack	Cadmium (Cd)		Cadmium	Y	436	long tons/hour	436000	9.96E-07	lb/long ton	P. Test	[7]	0	4.34E-04	1.90E-03	4.34E-04	1.90E-03
EQUI 279	EU261	SV118	STRU 208	L4 Waste Gas Stack	Chromium (Cr)		Chromium	Y	436	long tons/hour	436000	8.64E-06	lb/long ton	P. Test	[7]	0	3.77E-03	1.65E-02	3.77E-03	1.65E-02
EQUI 279	EU261	SV118	STRU 208	L4 Waste Gas Stack	Cobalt (Co)		Cobalt	Y	436	long tons/hour	436000	8.40E-07	lb/long ton	P. Test	[7]	0	3.66E-04	1.60E-03	3.66E-04	1.60E-03
EQUI 279	EU261	SV118	STRU 208	L4 Waste Gas Stack	Lead		Lead	Y	436	long tons/hour	436000	6.30E-05	lb/long ton	P. Test	[7]	0	2.75E-02	1.20E-01	2.75E-02	1.20E-01
EQUI 279	EU261	SV118	STRU 208	L4 Waste Gas Stack	Manganese (Mn)		Manganese	Y	436	long tons/hour	436000	2.64E-05	lb/long ton	P. Test	[7]	0	1.15E-02	5.04E-02	1.15E-02	5.04E-02
EQUI 279	EU261	SV118	STRU 208	L4 Waste Gas Stack	Mercury		Mercury	Y	436	long tons/hour	436000	1.44E-05	lb/long ton	P. Test	[11]	0	6.28E-03	2.75E-02	6.28E-03	2.75E-02
EQUI 279	EU261	SV118	STRU 208	L4 Waste Gas Stack	Nickel (Ni)		Nickel	Y	436	long tons/hour	436000	6.24E-06	lb/long ton	P. Test	[7]	0	2.72E-03	1.19E-02	2.72E-03	1.19E-02
EQUI 279	EU261	SV118	STRU 208	L4 Waste Gas Stack	Phosphorus (P)		Phosphorus	Y	436	long tons/hour	436000	1.32E-05	lb/long ton	P. Test	[7]	0	5.76E-03	2.52E-02	5.76E-03	2.52E-02
EQUI 279	EU261	SV118	STRU 208	L4 Waste Gas Stack	Selenium (Se)		Selenium	Y	436	long tons/hour	436000	1.03E-05	lb/long ton	P. Test	[7]	0	4.50E-03	1.97E-02	4.50E-03	1.97E-02
EQUI 279	EU261	SV118	STRU 208	L4 Waste Gas Stack	Hydrogen Chloride		Hydrogen Chloride	Y	436	long tons/hour	436000	1.68E-03	lb/long ton	P. Test	[7]	0	7.32E-01	3.21E+00	7.32E-01	3.21E+00
EQUI 279	EU261	SV118	STRU 208	L4 Waste Gas Stack	Hydrogen Fluoride		Hydrogen Fluoride	Y	436	long tons/hour	436000	5.76E-05	lb/long ton	P. Test	[7]	0	2.51E-02	1.10E-01	2.51E-02	1.10E-01
EQUI 279	EU261	SV118	STRU 208	L4 Waste Gas Stack	Fluorides		Fluorides		436	long tons/hour	436000	5.34E-03	lb/long ton	P. Test	[12]	0	2.33E+00	1.02E+01	2.33E+00	1.02E+01
EQUI 279	EU261	SV118	STRU 208	L4 Waste Gas Stack	Combustion HAP Emissions															
EQUI 279	EU261	SV118	STRU 208	L4 Waste Gas Stack	Acenaphthene		Acenaphthene		436	long tons/hour	364400	8.82E-08	lb/long ton	Comb HAP	[9]	0	4.31E-05	1.89E-04	4.31E-05	1.89E-04
EQUI 279	EU261	SV118	STRU 208	L4 Waste Gas Stack	Acenaphthylene		Acenaphthylene		436	long tons/hour	364400	1.06E-09	lb/long ton	Comb HAP	[9]	0	5.16E-07	2.26E-06	5.16E-07	2.26E-06
EQUI 279	EU261	SV118	STRU 208	L4 Waste Gas Stack	Anthracene		Anthracene		436	long tons/hour	364400	5.10E-09	lb/long ton	Comb HAP	[9]	0	2.49E-06	1.09E-05	2.49E-06	1.09E-05
EQUI 279	EU261	SV118	STRU 208	L4 Waste Gas Stack	Barium Compounds		Barium Compounds		436	long tons/hour	364400	2.52E-06	lb/long ton	Comb HAP	[9]	0	1.23E-03	5.40E-03	1.23E-03	5.40E-03
EQUI 279	EU261	SV118	STRU 208	L4 Waste Gas Stack	Benzene		Benzene	Y	436	long tons/hour	364400	1.20E-06	lb/long ton	Comb HAP	[9]	0	5.88E-04	2.58E-03	5.88E-04	2.58E-03
EQUI 279	EU261	SV118	STRU 208	L4 Waste Gas Stack	Benzo(a)anthracene		Benzo(a)anthracene		436	long tons/hour	364400	1.68E-08	lb/long ton	Comb HAP	[9]	0	8.18E-06	3.58E-05	8.18E-06	3.58E-05
EQUI 279	EU261	SV118	STRU 208	L4 Waste Gas Stack	Benzo(a)pyrene		Benzo(a)pyrene		436	long tons/hour	364400	6.88E-10	lb/long ton	Comb HAP	[9]	0	3.36E-07	1.47E-06	3.36E-07	1.47E-06
EQUI 279	EU261	SV118	STRU 208	L4 Waste Gas Stack	Benzo(b)fluoranthene		Benzo(b)fluoranthene		436	long tons/hour	364400	6.18E-09	lb/long ton	Comb HAP	[9]	0	3.02E-06	1.32E-05	3.02E-06	1.32E-05
EQUI 279	EU261	SV118	STRU 208	L4 Waste Gas Stack	Benzo(g,h,i)perylene		Benzo(g,h,i)perylene		436	long tons/hour	364400	9.44E-09	lb/long ton	Comb HAP	[9]	0	4.61E-06	2.02E-05	4.61E-06	2.02E-05
EQUI 279	EU261	SV118	STRU 208	L4 Waste Gas Stack	Benzo(k)fluoranthene		Benzo(k)fluoranthene		436	long tons/hour	364400	6.18E-09	lb/long ton	Comb HAP	[9]	0	3.02E-06	1.32E-05	3.02E-06	1.32E-05
EQUI 279	EU261	SV118	STRU 208	L4 Waste Gas Stack	Butane		Butane		436	long tons/hour	364400	1.20E-03	lb/long ton	Comb HAP	[9]	0	5.88E-01	2.58E+00	5.88E-01	2.58E+00
EQUI 279	EU261	SV118	STRU 208	L4 Waste Gas Stack	Chrysene		Chrysene		436	long tons/hour	364400	9.95E-09	lb/long ton	Comb HAP	[9]	0	4.86E-06	2.13E-05	4.86E-06	2.13E-05
EQUI 279	EU261	SV118	STRU 208	L4 Waste Gas Stack	Dibenz(a,h)anthracene		Dibenz(a,h)anthracene		436	long tons/hour	364400	6.98E-09	lb/long ton	Comb HAP	[9]	0	3.41E-06	1.49E-05	3.41E-06	1.49E-05
EQUI 279	EU261	SV118	STRU 208	L4 Waste Gas Stack	Dichlorobenzenes		Dichlorobenzenes	Y	436	long tons/hour	364400	6.88E-07	lb/long ton	Comb HAP	[9]	0	3.36E-04	1.47E-03	3.36E-04	1.47E-03
EQUI 279	EU261	SV118	STRU 208	L4 Waste Gas Stack	Dimethylbenzo(a)anthracene, 7		Dimethylbenzo(a)anthracene, 7		436	long tons/hour	364400	9.18E-09	lb/long ton	Comb HAP	[9]	0	4.48E-06	1.96E-05	4.48E-06	1.96E-05
EQUI 279	EU261	SV118	STRU 208	L4 Waste Gas Stack	Ethyl benzene		Ethylbenzene	Y	436	long tons/hour	364400	2.66E-07	lb/long ton	Comb HAP	[9]	0	1.30E-04	5.68E-04	1.30E-04	5.68E-04
EQUI 279	EU261	SV118	STRU 208	L4 Waste Gas Stack	Fluoranthene		Fluoranthene		436	long tons/hour	364400	2.02E-08	lb/long ton	Comb HAP	[9]	0	9.88E-06	4.33E-05	9.88E-06	4.33E-05
EQUI 279	EU261	SV118	STRU 208	L4 Waste Gas Stack	Fluorene		Fluorene		436	long tons/hour	364400	1.87E-08	lb/long ton	Comb HAP	[9]	0	9.12E-06	3.99E-05	9.12E-06	3.99E-05
EQUI 279	EU261	SV118	STRU 208	L4 Waste Gas Stack	Formaldehyde		Formaldehyde	Y	436	long tons/hour	364400	1.38E-04	lb/long ton	Comb HAP	[9]	0	6.73E-02	2.95E-01	6.73E-02	2.95E-01
EQUI 279	EU261	SV118	STRU 208	L4 Waste Gas Stack	Hexane		Hexane	Y	436	long tons/hour	364400	1.03E-03	lb/long ton	Comb HAP	[9]	0	5.04E-01	2.21E+00	5.04E-01	2.21E+00
EQUI 279	EU261	SV118	STRU 208	L4 Waste Gas Stack	Indeno(1,2,3-cd)pyrene		Indeno(1,2,3-cd)pyrene		436	long tons/hour	364400	8.94E-09	lb/long ton	Comb HAP	[9]	0	4.37E-06	1.91E-05	4.37E-06	1.91E-05
EQUI 279	EU261	SV118	STRU 208	L4 Waste Gas Stack	Methylcholanthrene, 3-		Methylcholanthrene, 3-		436	long tons/hour	364400	1.03E-09	lb/long ton	Comb HAP	[9]	0	5.04E-07	2.21E-06	5.04E-07	2.21E-06
EQUI 279	EU261	SV118	STRU 208	L4 Waste Gas Stack	Methylnaphthalene, 2-		Methylnaphthalene, 2-		436	long tons/hour	364400	1.38E-08	lb/long ton	Comb HAP	[9]	0	6.72E-06	2.94E-05	6.72E-06	2.94E-05
EQUI 279	EU261	SV118	STRU 208	L4 Waste Gas Stack	Naphthalene		Naphthalene	Y	436	long tons/hour	364400	4.72E-06	lb/long ton	Comb HAP	[9]	0	2.31E-03	1.01E-02	2.31E-03	1.01E-02
EQUI 279	EU261	SV118	STRU 208	L4 Waste Gas Stack	Phenanthrene		Phenanthrene		436	long tons/hour	364400	4.39E-08	lb/long ton	Comb HAP	[9]	0	2.14E-05	9.38E-05	2.14E-05	9.38E-05
EQUI 279	EU261	SV118	STRU 208	L4 Waste Gas Stack	Propane		Propane		436	long tons/hour	364400	9.18E-04	lb/long ton	Comb HAP	[9]	0	4.48E-01	1.96E+00	4.48E-01	1.96E+00
EQUI 279	EU261	SV118	STRU 208	L4 Waste Gas Stack	Pyrene		Pyrene		436	long tons/hour	364400	1.78E-08	lb/long ton	Comb HAP	[9]	0	8.67E-06	3.80E-05	8.67E-06	3.80E-05
EQUI 279	EU261	SV118	STRU 208	L4 Waste Gas Stack	Toluene		Toluene	Y	436	long tons/hour	364400	2.59E-05	lb/long ton	Comb HAP	[9]	0	1.27E-02	5.54E-02	1.27E-02	5.54E-02
EQUI 279	EU261	SV118	STRU 208	L4 Waste Gas Stack	Trichloroethane, 1,1,1		Trichloroethane, 1,1,1	Y	436	long tons/hour	364400	9.86E-07	lb/long ton	Comb HAP	[9]	0	4.82E-04	2.11E-03	4.82E-04	2.11E-03
EQUI 279	EU261	SV118	STRU 208	L4 Waste Gas Stack	Xylene		Xylene	Y	436	long tons/hour</										

EQUI 280	EU282	SV127	STRU 60	L5 Waste Gas Stack	PM2.5	PM2.5	436	long tons/hour	437250	0.0138	gr/dscf	Varies	[4]	85.4	354	1,549	51.57	225.85	
EQUI 280	EU282	SV127	STRU 60	L5 Waste Gas Stack	PM Cond	PM Cond	436	long tons/hour	437250	0.005	gr/dscf	P. Test	[4]	0	17.99	78.79	17.99	78.79	
EQUI 280	EU282	SV127	STRU 60	L5 Waste Gas Stack	CO	CO	436	long tons/hour	437250	0.0815	lb/long ton	P. Test	[12]	0	35.5	155.7	35.5	155.7	
EQUI 280	EU282	SV127	STRU 60	L5 Waste Gas Stack	NOx	NOx	436	long tons/hour	437250	N/A	N/A	CEMS data	[13]	0	614	2,690	614	COMG 37	
EQUI 280	EU282	SV127	STRU 60	L5 Waste Gas Stack	VOC	VOC	436	long tons/hour	437250	0.0215	lb/long ton	P. Test	[12]	0	9.4	41.0	9.4	41.0	
EQUI 280	EU282	SV127	STRU 60	L5 Waste Gas Stack	SO2	SOx	436	long tons/hour	437250	N/A	N/A	CEMS data	[13]	30	163	712	114	498	
EQUI 280	EU282	SV127	STRU 60	L5 Waste Gas Stack	Sulfuric Acid Mist (SAM)	Sulfuric Acid Mist (SAM)	436	long tons/hour	437250	3.24E-04	lb/long ton	P. Test	[5]	0	1.41E-01	6.18E-01	1.41E-01	6.18E-01	
EQUI 280	EU282	SV127	STRU 60	L5 Waste Gas Stack	CO2	CO2	436	long tons/hour	437250	--	--	--	[1]	0	90,432	396,092	90,431.9	396,092	
EQUI 280	EU282	SV127	STRU 60	L5 Waste Gas Stack	CH4	CH4	436	long tons/hour	437250	--	--	--	[1]	0	12.7	55.5	12.7	55.5	
EQUI 280	EU282	SV127	STRU 60	L5 Waste Gas Stack	N2O	N2O	436	long tons/hour	437250	--	--	--	[1]	0	1.3	5.8	1.3	5.8	
EQUI 280	EU282	SV127	STRU 60	L5 Waste Gas Stack	CO2e	CO2e	436	long tons/hour	437250	--	--	--	[1]	0	91,108	399,054	91,108.1	399,054	
EQUI 280	EU282	SV127	STRU 60	L5 Waste Gas Stack	Induration HAP Emissions														
EQUI 280	EU282	SV127	STRU 60	L5 Waste Gas Stack	Antimony (Sb)	Antimony	Y	436	long tons/hour	437250	1.44E-07	lb/long ton	P. Test	[7]	0	6.28E-05	2.75E-04	6.28E-05	2.75E-04
EQUI 280	EU282	SV127	STRU 60	L5 Waste Gas Stack	Arsenic (As)	Arsenic	Y	436	long tons/hour	437250	1.12E-05	lb/long ton	P. Test	[7]	0	4.87E-03	2.13E-02	4.87E-03	2.13E-02
EQUI 280	EU282	SV127	STRU 60	L5 Waste Gas Stack	Beryllium (Be)	Beryllium	Y	436	long tons/hour	437250	2.28E-07	lb/long ton	P. Test	[7]	0	9.94E-05	4.35E-04	9.94E-05	4.35E-04
EQUI 280	EU282	SV127	STRU 60	L5 Waste Gas Stack	Cadmium (Cd)	Cadmium	Y	436	long tons/hour	437250	9.96E-07	lb/long ton	P. Test	[7]	0	4.34E-04	1.90E-03	4.34E-04	1.90E-03
EQUI 280	EU282	SV127	STRU 60	L5 Waste Gas Stack	Chromium (Cr)	Chromium	Y	436	long tons/hour	437250	8.64E-06	lb/long ton	P. Test	[7]	0	3.77E-03	1.65E-02	3.77E-03	1.65E-02
EQUI 280	EU282	SV127	STRU 60	L5 Waste Gas Stack	Cobalt (Co)	Cobalt	Y	436	long tons/hour	437250	8.40E-07	lb/long ton	P. Test	[7]	0	3.66E-04	1.60E-03	3.66E-04	1.60E-03
EQUI 280	EU282	SV127	STRU 60	L5 Waste Gas Stack	Lead	Lead	Y	436	long tons/hour	437250	6.30E-05	lb/long ton	P. Test	[7]	0	2.75E-02	1.20E-01	2.75E-02	1.20E-01
EQUI 280	EU282	SV127	STRU 60	L5 Waste Gas Stack	Manganese (Mn)	Manganese	Y	436	long tons/hour	437250	2.64E-05	lb/long ton	P. Test	[7]	0	1.15E-02	5.04E-02	1.15E-02	5.04E-02
EQUI 280	EU282	SV127	STRU 60	L5 Waste Gas Stack	Mercury	Mercury	Y	436	long tons/hour	437250	1.44E-05	lb/long ton	P. Test	[11]	0	6.28E-03	2.75E-02	6.28E-03	2.75E-02
EQUI 280	EU282	SV127	STRU 60	L5 Waste Gas Stack	Nickel (Ni)	Nickel	Y	436	long tons/hour	437250	6.24E-06	lb/long ton	P. Test	[7]	0	2.72E-03	1.19E-02	2.72E-03	1.19E-02
EQUI 280	EU282	SV127	STRU 60	L5 Waste Gas Stack	Phosphorus (P)	Phosphorus	Y	436	long tons/hour	437250	1.32E-05	lb/long ton	P. Test	[7]	0	5.76E-03	2.52E-02	5.76E-03	2.52E-02
EQUI 280	EU282	SV127	STRU 60	L5 Waste Gas Stack	Selenium (Se)	Selenium	Y	436	long tons/hour	437250	1.03E-05	lb/long ton	P. Test	[7]	0	4.50E-03	1.97E-02	4.50E-03	1.97E-02
EQUI 280	EU282	SV127	STRU 60	L5 Waste Gas Stack	Hydrogen Chloride	Hydrogen Chloride	Y	436	long tons/hour	437250	1.68E-03	lb/long ton	P. Test	[7]	0	7.32E-01	3.21E+00	7.32E-01	3.21E+00
EQUI 280	EU282	SV127	STRU 60	L5 Waste Gas Stack	Hydrogen Fluoride	Hydrogen Fluoride	Y	436	long tons/hour	437250	5.76E-05	lb/long ton	P. Test	[7]	0	2.51E-02	1.10E-01	2.51E-02	1.10E-01
EQUI 280	EU282	SV127	STRU 60	L5 Waste Gas Stack	Fluorides	Fluorides		436	long tons/hour	437250	5.52E-03	lb/long ton	P. Test	[12]	0	2.41E+00	1.06E+01	2.41E+00	1.06E+01
EQUI 280	EU282	SV127	STRU 60	L5 Waste Gas Stack	Combustion HAP Emissions														
EQUI 280	EU282	SV127	STRU 60	L5 Waste Gas Stack	Acenaphthene	Acenaphthene		436	long tons/hour	364400	8.82E-08	lb/long ton	Comb HAP	[9]	0	4.31E-05	1.89E-04	4.31E-05	1.89E-04
EQUI 280	EU282	SV127	STRU 60	L5 Waste Gas Stack	Acenaphthylene	Acenaphthylene		436	long tons/hour	364400	1.06E-09	lb/long ton	Comb HAP	[9]	0	5.16E-07	2.26E-06	5.16E-07	2.26E-06
EQUI 280	EU282	SV127	STRU 60	L5 Waste Gas Stack	Anthracene	Anthracene		436	long tons/hour	364400	5.10E-09	lb/long ton	Comb HAP	[9]	0	2.49E-06	1.09E-05	2.49E-06	1.09E-05
EQUI 280	EU282	SV127	STRU 60	L5 Waste Gas Stack	Barium Compounds	Barium Compounds		436	long tons/hour	364400	2.52E-06	lb/long ton	Comb HAP	[9]	0	1.23E-03	5.40E-03	1.23E-03	5.40E-03
EQUI 280	EU282	SV127	STRU 60	L5 Waste Gas Stack	Benzene	Benzene	Y	436	long tons/hour	364400	1.20E-06	lb/long ton	Comb HAP	[9]	0	5.88E-04	2.58E-03	5.88E-04	2.58E-03
EQUI 280	EU282	SV127	STRU 60	L5 Waste Gas Stack	Benzo(a)anthracene	benzo(a)anthracene		436	long tons/hour	364400	1.68E-08	lb/long ton	Comb HAP	[9]	0	8.18E-06	3.58E-05	8.18E-06	3.58E-05
EQUI 280	EU282	SV127	STRU 60	L5 Waste Gas Stack	Benzo(a)pyrene	Benzo(a)pyrene		436	long tons/hour	364400	6.88E-10	lb/long ton	Comb HAP	[9]	0	3.36E-07	1.47E-06	3.36E-07	1.47E-06
EQUI 280	EU282	SV127	STRU 60	L5 Waste Gas Stack	Benzo(b)fluoranthene	benzo(b)fluoranthene		436	long tons/hour	364400	6.18E-09	lb/long ton	Comb HAP	[9]	0	3.02E-06	1.32E-05	3.02E-06	1.32E-05
EQUI 280	EU282	SV127	STRU 60	L5 Waste Gas Stack	Benzo(g,h,i)perylene	benzo(g,h,i)perylene		436	long tons/hour	364400	9.44E-09	lb/long ton	Comb HAP	[9]	0	4.61E-06	2.02E-05	4.61E-06	2.02E-05
EQUI 280	EU282	SV127	STRU 60	L5 Waste Gas Stack	Benzo(k)fluoranthene	benzo(k)fluoranthene		436	long tons/hour	364400	6.18E-09	lb/long ton	Comb HAP	[9]	0	3.02E-06	1.32E-05	3.02E-06	1.32E-05
EQUI 280	EU282	SV127	STRU 60	L5 Waste Gas Stack	Butane	Butane		436	long tons/hour	364400	1.20E-03	lb/long ton	Comb HAP	[9]	0	5.88E-01	2.58E+00	5.88E-01	2.58E+00
EQUI 280	EU282	SV127	STRU 60	L5 Waste Gas Stack	Chrysene	Chrysene		436	long tons/hour	364400	9.95E-09	lb/long ton	Comb HAP	[9]	0	4.86E-06	2.13E-05	4.86E-06	2.13E-05
EQUI 280	EU282	SV127	STRU 60	L5 Waste Gas Stack	Dibenz(a,h)anthracene	benz(a,h)anthracene		436	long tons/hour	364400	6.98E-09	lb/long ton	Comb HAP	[9]	0	3.41E-06	1.49E-05	3.41E-06	1.49E-05
EQUI 280	EU282	SV127	STRU 60	L5 Waste Gas Stack	Dichlorobenzenes	Dichlorobenzenes	Y	436	long tons/hour	364400	6.88E-07	lb/long ton	Comb HAP	[9]	0	3.36E-04	1.47E-03	3.36E-04	1.47E-03
EQUI 280	EU282	SV127	STRU 60	L5 Waste Gas Stack	Dimethylbenzo(a)anthracene, 7	benzo(a)anthracene, 7,		436	long tons/hour	364400	9.18E-09	lb/long ton	Comb HAP	[9]	0	4.48E-06	1.96E-05	4.48E-06	1.96E-05
EQUI 280	EU282	SV127	STRU 60	L5 Waste Gas Stack	Ethyl benzene	Ethylbenzene	Y	436	long tons/hour	364400	2.66E-07	lb/long ton	Comb HAP	[9]	0	1.30E-04	5.68E-04	1.30E-04	5.68E-04
EQUI 280	EU282	SV127	STRU 60	L5 Waste Gas Stack	Fluoranthene	Fluoranthene		436	long tons/hour	364400	2.02E-08	lb/long ton	Comb HAP	[9]	0	9.88E-06	4.33E-05	9.88E-06	4.33E-05
EQUI 280	EU282	SV127	STRU 60	L5 Waste Gas Stack	Fluorene	Fluorene		436	long tons/hour	364400	1.87E-08	lb/long ton	Comb HAP	[9]	0	9.12E-06	3.99E-05	9.12E-06	3.99E-05
EQUI 280	EU282	SV127	STRU 60	L5 Waste Gas Stack	Formaldehyde	Formaldehyde	Y	436	long tons/hour	364400	1.38E-04	lb/long ton	Comb HAP	[9]	0	6.73E-02	2.95E-01	6.73E-02	2.95E-01
EQUI 280	EU282	SV127	STRU 60	L5 Waste Gas Stack	Hexane	Hexane	Y	436	long tons/hour	364400	1.03E-03	lb/long ton	Comb HAP	[9]	0	5.04E-01	2.21E+00	5.04E-01	2.21E+00
EQUI 280	EU282	SV127	STRU 60	L5 Waste Gas Stack	Indeno(1,2,3-cd)pyrene	beno(1,2,3-cd)pyrene		436	long tons/hour	364400	8.94E-09	lb/long ton	Comb HAP	[9]	0	4.37E-06	1.91E-05	4.37E-06	1.91E-05
EQUI 280	EU282	SV127	STRU 60	L5 Waste Gas Stack	Methylcholanthrene, 3-	ethylcholanthrene, 3-		436	long tons/hour	364400	1.03E-09	lb/long ton	Comb HAP	[9]	0	5.04E-07	2.21E-06	5.04E-07	2.21E-06
EQUI 280	EU282	SV127	STRU 60	L5 Waste Gas Stack	Methylnaphthalene, 2-	ethylnaphthalene, 2-		436	long tons/hour	364400	1.38E-08	lb/long ton	Comb HAP	[9]	0	6.72E-06	2.94E-05	6.72E-06	2.94E-05
EQUI 280	EU282	SV127	STRU 60	L5 Waste Gas Stack	Naphthalene	Naphthalene	Y	436	long tons/hour	364400	4.72E-06	lb/long ton	Comb HAP	[9]	0	2.31E-03	1.01E-02	2.31E-03	1.01E-02
EQUI 280	EU282	SV127	STRU 60	L5 Waste Gas Stack	Phenanthrene	Phenanthrene		436	long tons/hour	364400	4.39E-08	lb/long ton	Comb HAP	[9]	0	2.14E-05	9.38E-05	2.14E-05	9.38E-05
EQUI 280	EU282	SV127	STRU 60	L5 Waste Gas Stack	Propane	Propane		436	long tons/hour	364400	9.18E-04	lb/long ton	Comb HAP	[9]	0	4.48E-01	1.96E+00	4.48E-01	1.96E+00
EQUI 280	EU282	SV127	STRU 60	L5 Waste Gas Stack	Pyrene	Pyrene		436	long tons/hour	364400	1.78E-08	lb/long ton	Comb HAP	[9]	0	8.67E-06	3.80E-05	8.67E-06	3.80E-05
EQUI 280	EU282	SV127	STRU 60	L5 Waste Gas Stack	Toluene	Toluene	Y	436	long tons/hour	364400	2.59E-05	lb/long ton	Comb HAP	[9]	0	1.27E-02	5.54E-02	1.27E-02	5.54E-02
EQUI 280	EU282	SV127	STRU 60	L5 Waste Gas Stack	Trichloroethane, 1,1,1	trichloroethane, 1,1	Y	436	long tons/hour	364400	9.86E-07	lb/long ton	Comb HAP	[9]	0	4.82E-04	2.11E-03	4.82E-04	2.11E-03
EQUI 280	EU282	SV127	STRU 60	L5 Waste Gas Stack	Xylene	Xylene	Y	436	long tons/hour	364400	4.55E-07	lb/long ton	Comb HAP	[9]	0	2.22E-04	9.74E-04	2.22E-04	9.74E-04
EQUI 280	EU282	SV127	STRU 60	L5 Waste Gas Stack	Polycyclic Organic Material	POM	Y	436	long tons/hour	364400	5.06E-08	lb/long ton	Comb HAP	[9]	0	2.47E-05	1.08E-04	2.47E-05	1.08E-04
EQUI 280	EU282	SV127	STRU 60	L5 Waste Gas Stack	Total HAP	Total HAPs		436	long tons/hour	364400	--	--	--	--	0	1.41	6.19	1.41	6.19
Line 6 Waste Gas Stack																			
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	PM	PM	436	long tons/hour	364400	0.0149	gr/dscf	MACT	[4]	97.1	1608	7,044	46.54	203.84	
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	PM10	PM10	436	long tons/hour	364400	0.0144	gr/dscf	Varies	[4]	92.2	575	2,518	44.86	196.50	
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	PM2.5	PM2.5	436	long tons/hour	364400	0.0118	gr/dscf	Varies	[4]	87.3	289	1,264	36.73	160.86	
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	PM Cond	PM Cond	436	long tons/hour	364400	0.003	gr/dscf	P. Test	[4]	0	8.75	38.31	8.75	38.31	
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	CO	CO	436	long tons/hour	364400	0.0857	lb/long ton	P. Test	[12]	0	37.4	163.7	37.4		

EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Sulfuric Acid Mist (SAM)	Sulfuric Acid Mist (SAM)	436	long tons/hour	364400	3.24E-04	lb/long ton	P.Test	[5]	0	1.41E-01	6.18E-01	1.41E-01	6.18E-01	
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	CO2	CO2	436	long tons/hour	364400	--	--	--	[1]	0	91.556	401.014	91.555.8	401.014	
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	CH4	CH4	436	long tons/hour	364400	--	--	--	[1]	0	12.7	55.5	12.7	55.5	
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	N2O	N2O	436	long tons/hour	364400	--	--	--	[1]	0	1.3	5.8	1.3	5.8	
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	CO2e	CO2e	436	long tons/hour	364400	--	--	--	[1]	0	92.232	403.976	92.232.0	403.976	
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Dioxin and Furan Emissions from Coal Combustion														
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	436	long tons/hour	364400	4.46E-13	lb/ton	AP-42	[10]	0	2.18E-10	9.55E-10	2.18E-10	9.55E-10	
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	TCDD (Total PCDD)	TCDD - TE	436	long tons/hour	364400	2.08E-11	lb/ton	AP-42	[10]	0	1.02E-08	4.45E-08	1.02E-08	4.45E-08	
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Dibenzofurans (Total PCDF)	Dibenzofurans	436	long tons/hour	364400	3.40E-11	lb/ton	AP-42	[10]	0	1.66E-08	7.28E-08	1.66E-08	7.28E-08	
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Total PCDD/PCDF	Total PCDD/PCDF	Y	436	long tons/hour	364400	5.48E-11	lb/ton	AP-42	[10]	0	2.68E-08	1.17E-07	2.68E-08	1.17E-07
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Induration HAP Emissions														
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Antimony (Sb)	Antimony	Y	436	long tons/hour	364400	1.80E-07	lb/long ton	P.Test	[8]	0	7.85E-05	3.44E-04	7.85E-05	3.44E-04
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Arsenic (As)	Arsenic	Y	436	long tons/hour	364400	1.80E-04	lb/long ton	P.Test	[8]	0	7.85E-02	3.44E-01	7.85E-02	3.44E-01
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Beryllium (Be)	Beryllium	Y	436	long tons/hour	364400	6.55E-07	lb/long ton	P.Test	[8]	0	2.86E-04	1.25E-03	2.86E-04	1.25E-03
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Cadmium (Cd)	Cadmium	Y	436	long tons/hour	364400	6.96E-07	lb/long ton	P.Test	[8]	0	3.03E-04	1.33E-03	3.03E-04	1.33E-03
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Chromium (Cr)	Chromium	Y	436	long tons/hour	364400	2.40E-05	lb/long ton	P.Test	[8]	0	1.05E-02	4.58E-02	1.05E-02	4.58E-02
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Cobalt (Co)	Cobalt	Y	436	long tons/hour	364400	5.76E-07	lb/long ton	P.Test	[8]	0	2.51E-04	1.10E-03	2.51E-04	1.10E-03
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Lead	Lead	Y	436	long tons/hour	364400	9.24E-05	lb/long ton	P.Test	[8]	0	4.03E-02	1.76E-01	4.03E-02	1.76E-01
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Manganese (Mn)	Manganese	Y	436	long tons/hour	364400	7.44E-05	lb/long ton	P.Test	[8]	0	3.24E-02	1.42E-01	3.24E-02	1.42E-01
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Mercury	Mercury	Y	436	long tons/hour	364400	1.94E-05	lb/long ton	P.Test	[11]	0	8.48E-03	3.71E-02	8.48E-03	3.71E-02
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Nickel (Ni)	Nickel	Y	436	long tons/hour	364400	9.12E-06	lb/long ton	P.Test	[8]	0	3.98E-03	1.74E-02	3.98E-03	1.74E-02
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Phosphorus (P)	Phosphorus	Y	436	long tons/hour	364400	3.84E-05	lb/long ton	P.Test	[8]	0	1.67E-02	7.33E-02	1.67E-02	7.33E-02
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Selenium (Se)	Selenium	Y	436	long tons/hour	364400	2.52E-05	lb/long ton	P.Test	[8]	0	1.10E-02	4.81E-02	1.10E-02	4.81E-02
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Hydrogen Chloride	Hydrogen Chloride	Y	436	long tons/hour	364400	1.80E-03	lb/long ton	P.Test	[8]	0	7.85E-01	3.44E+00	7.85E-01	3.44E+00
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Hydrogen Fluoride	Hydrogen Fluoride	Y	436	long tons/hour	364400	5.04E-03	lb/long ton	P.Test	[8]	0	2.20E+00	9.62E+00	2.20E+00	9.62E+00
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Fluorides	Fluorides	Y	436	long tons/hour	364400	2.66E-03	lb/long ton	P.Test	[12]	0	1.16E+00	5.08E+00	1.16E+00	5.08E+00
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Combustion HAP Emissions														
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Acenaphthene	Acenaphthene	Y	436	long tons/hour	364400	8.82E-08	lb/long ton	Comb HAP	[9]	0	4.31E-05	1.89E-04	4.31E-05	1.89E-04
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Acenaphthylene	Acenaphthylene	Y	436	long tons/hour	364400	7.80E-09	lb/long ton	Comb HAP	[9]	0	3.81E-06	1.67E-05	3.81E-06	1.67E-05
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Acetaldehyde	Acetaldehyde	Y	436	long tons/hour	364400	1.78E-05	lb/long ton	Comb HAP	[9]	0	8.69E-03	3.81E-02	8.69E-03	3.81E-02
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Acetophenone	Acetophenone	Y	436	long tons/hour	364400	4.68E-07	lb/long ton	Comb HAP	[9]	0	2.29E-04	1.00E-03	2.29E-04	1.00E-03
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Acrolein	Acrolein	Y	436	long tons/hour	364400	9.05E-06	lb/long ton	Comb HAP	[9]	0	4.42E-03	1.94E-02	4.42E-03	1.94E-02
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Anthracene	Anthracene	Y	436	long tons/hour	364400	6.56E-09	lb/long ton	Comb HAP	[9]	0	3.20E-06	1.40E-05	3.20E-06	1.40E-05
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Barium Compounds	Barium Compounds	Y	436	long tons/hour	364400	2.52E-06	lb/long ton	Comb HAP	[9]	0	1.23E-03	5.40E-03	1.23E-03	5.40E-03
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Benzene	Benzene	Y	436	long tons/hour	364400	4.06E-05	lb/long ton	Comb HAP	[9]	0	1.98E-02	8.68E-02	1.98E-02	8.68E-02
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Benzo(a)anthracene	benzo(a)anthracene	Y	436	long tons/hour	364400	1.68E-08	lb/long ton	Comb HAP	[9]	0	8.18E-06	3.58E-05	8.18E-06	3.58E-05
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Benzo(a)pyrene	Benzo(a)pyrene	Y	436	long tons/hour	364400	1.19E-09	lb/long ton	Comb HAP	[9]	0	5.79E-07	2.54E-06	5.79E-07	2.54E-06
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Benzo(b)fluoranthene	benzo(b)fluoranthene	Y	436	long tons/hour	364400	6.18E-09	lb/long ton	Comb HAP	[9]	0	3.02E-06	1.32E-05	3.02E-06	1.32E-05
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Benzo(g,h,i)perylene	benzo(g,h,i)perylene	Y	436	long tons/hour	364400	9.44E-09	lb/long ton	Comb HAP	[9]	0	4.61E-06	2.02E-05	4.61E-06	2.02E-05
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Benzo(k)fluoranthene	benzo(k)fluoranthene	Y	436	long tons/hour	364400	6.18E-09	lb/long ton	Comb HAP	[9]	0	3.02E-06	1.32E-05	3.02E-06	1.32E-05
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Benzyl chloride	Benzyl chloride	Y	436	long tons/hour	364400	2.19E-05	lb/long ton	Comb HAP	[9]	0	1.07E-02	4.67E-02	1.07E-02	4.67E-02
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Biphenyl	Biphenyl	Y	436	long tons/hour	364400	5.31E-08	lb/long ton	Comb HAP	[9]	0	2.59E-05	1.14E-04	2.59E-05	1.14E-04
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Bis(2-ethylhexyl)phthalate (DEH)	ethylhexyl)phthalate	Y	436	long tons/hour	364400	2.28E-06	lb/long ton	Comb HAP	[9]	0	1.11E-03	4.87E-03	1.11E-03	4.87E-03
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Bromoform	Bromoform	Y	436	long tons/hour	364400	1.22E-06	lb/long ton	Comb HAP	[9]	0	5.95E-04	2.60E-03	5.95E-04	2.60E-03
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Butane	Butane	Y	436	long tons/hour	364400	1.20E-03	lb/long ton	Comb HAP	[9]	0	5.88E-01	2.58E+00	5.88E-01	2.58E+00
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Carbon disulfide	Carbon disulfide	Y	436	long tons/hour	364400	4.06E-06	lb/long ton	Comb HAP	[9]	0	1.98E-03	8.68E-03	1.98E-03	8.68E-03
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Chloroacetophenone (2-)	chloroacetophenone	Y	436	long tons/hour	364400	2.19E-07	lb/long ton	Comb HAP	[9]	0	1.07E-04	4.67E-04	1.07E-04	4.67E-04
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Chlorobenzene	Chlorobenzene	Y	436	long tons/hour	364400	6.87E-07	lb/long ton	Comb HAP	[9]	0	3.35E-04	1.47E-03	3.35E-04	1.47E-03
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Chloroform	Chloroform	Y	436	long tons/hour	364400	1.84E-06	lb/long ton	Comb HAP	[9]	0	8.99E-04	3.94E-03	8.99E-04	3.94E-03
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Chrysene	Chrysene	Y	436	long tons/hour	364400	9.95E-09	lb/long ton	Comb HAP	[9]	0	4.86E-06	2.13E-05	4.86E-06	2.13E-05
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Cumene	Cumene	Y	436	long tons/hour	364400	1.65E-07	lb/long ton	Comb HAP	[9]	0	8.08E-05	3.54E-04	8.08E-05	3.54E-04
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Cyanide	Cyanide	Y	436	long tons/hour	364400	7.80E-05	lb/long ton	Comb HAP	[9]	0	3.81E-02	1.67E-01	3.81E-02	1.67E-01
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Dibenz(a,h)anthracene	benz(a,h)anthracene	Y	436	long tons/hour	364400	6.98E-09	lb/long ton	Comb HAP	[9]	0	3.41E-06	1.49E-05	3.41E-06	1.49E-05
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Dichlorobenzenes	Dichlorobenzenes	Y	436	long tons/hour	364400	6.88E-07	lb/long ton	Comb HAP	[9]	0	3.36E-04	1.47E-03	3.36E-04	1.47E-03
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Dimethylbenzo(a)anthracene, 7	benzo(a)anthracene, 7,	Y	436	long tons/hour	364400	9.18E-09	lb/long ton	Comb HAP	[9]	0	4.48E-06	1.96E-05	4.48E-06	1.96E-05
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Dimethyl sulfate	Dimethyl sulfate	Y	436	long tons/hour	364400	1.50E-06	lb/long ton	Comb HAP	[9]	0	7.32E-04	3.21E-03	7.32E-04	3.21E-03
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Dinitrotoluene 2,4	Dinitrotoluene 2,4	Y	436	long tons/hour	364400	8.74E-09	lb/long ton	Comb HAP	[9]	0	4.27E-06	1.87E-05	4.27E-06	1.87E-05
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Ethyl benzene	Ethylbenzene	Y	436	long tons/hour	364400	2.93E-06	lb/long ton	Comb HAP	[9]	0	1.43E-03	6.28E-03	1.43E-03	6.28E-03
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Ethyl chloride	Ethylchloride	Y	436	long tons/hour	364400	1.31E-06	lb/long ton	Comb HAP	[9]	0	6.40E-04	2.80E-03	6.40E-04	2.80E-03
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	ethylene dibromide	Ethylene dibromide	Y	436	long tons/hour	364400	3.75E-08	lb/long ton	Comb HAP	[9]	0	1.83E-05	8.01E-05	1.83E-05	8.01E-05
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	ethylene dichloride	Ethylene dichloride	Y	436	long tons/hour	364400	1.25E-06	lb/long ton	Comb HAP	[9]	0	6.10E-04	2.67E-03	6.10E-04	2.67E-03
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Fluoranthene	Fluoranthene	Y	436	long tons/hour	364400	2.22E-08	lb/long ton	Comb HAP	[9]	0	1.08E-05	4.74E-05	1.08E-05	4.74E-05
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Fluorene	Fluorene	Y	436	long tons/hour	364400	2.84E-08	lb/long ton	Comb HAP	[9]	0	1.39E-05	6.08E-05	1.39E-05	6.08E-05
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Formaldehyde	Formaldehyde	Y	436	long tons/hour	364400	1.38E-04	lb/long ton	Comb HAP	[9]	0	6.73E-02	2.95E-01	6.73E-02	2.95E-01
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Hexane	Hexane	Y	436	long tons/hour	364									

EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Hydrogen Chloride (as Cl)	Hydrogen Chloride	Y	436	long tons/hour	364400	3.75E-02	lb/long ton	Comb HAP	[9]	0	1.83E+01	8.01E+01	1.83E+01	8.01E+01
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Hydrogen Fluoride (as F)	Hydrogen Fluoride	Y	436	long tons/hour	364400	4.68E-03	lb/long ton	Comb HAP	[9]	0	2.29E+00	1.00E+01	2.29E+00	1.00E+01
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Indeno(1,2,3-cd)pyrene	Ieno(1,2,3-cd)pyrene		436	long tons/hour	364400	8.94E-09	lb/long ton	Comb HAP	[9]	0	4.37E-06	1.91E-05	4.37E-06	1.91E-05
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Isophorone	Isophorone	Y	436	long tons/hour	364400	1.81E-05	lb/long ton	Comb HAP	[9]	0	8.84E-03	3.87E-02	8.84E-03	3.87E-02
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Magnesium Compounds	gnesium Compounds		436	long tons/hour	364400	3.43E-04	lb/long ton	Comb HAP	[9]	0	1.68E-01	7.35E-01	1.68E-01	7.35E-01
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Methyl bromide	Methyl bromide	Y	436	long tons/hour	364400	5.00E-06	lb/long ton	Comb HAP	[9]	0	2.44E-03	1.07E-02	2.44E-03	1.07E-02
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Methyl chloride	Methyl chloride	Y	436	long tons/hour	364400	1.65E-05	lb/long ton	Comb HAP	[9]	0	8.08E-03	3.54E-02	8.08E-03	3.54E-02
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Methyl chrysene 5	Methyl chrysene 5		436	long tons/hour	364400	6.87E-10	lb/long ton	Comb HAP	[9]	0	3.35E-07	1.47E-06	3.35E-07	1.47E-06
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Methylcholanthrene, 3-	ethylcholanthrene, 3-		436	long tons/hour	364400	1.03E-09	lb/long ton	Comb HAP	[9]	0	5.04E-07	2.21E-06	5.04E-07	2.21E-06
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Methyl ethyl ketone	Methyl ethyl ketone		436	long tons/hour	364400	1.22E-05	lb/long ton	Comb HAP	[9]	0	5.95E-03	2.60E-02	5.95E-03	2.60E-02
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Methyl hydrazine	Methyl hydrazine	Y	436	long tons/hour	364400	5.31E-06	lb/long ton	Comb HAP	[9]	0	2.59E-03	1.14E-02	2.59E-03	1.14E-02
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Methyl methacrylate	Methyl methacrylat	Y	436	long tons/hour	364400	6.24E-07	lb/long ton	Comb HAP	[9]	0	3.05E-04	1.34E-03	3.05E-04	1.34E-03
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Methyl tert butyl ether	ethyl tert butyl ethe	Y	436	long tons/hour	364400	1.09E-06	lb/long ton	Comb HAP	[9]	0	5.34E-04	2.34E-03	5.34E-04	2.34E-03
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Methylene chloride	Methylene chloride	Y	436	long tons/hour	364400	9.05E-06	lb/long ton	Comb HAP	[9]	0	4.42E-03	1.94E-02	4.42E-03	1.94E-02
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Methylnaphthalene, 2-	ethylnaphthalene, 2-		436	long tons/hour	364400	1.38E-08	lb/long ton	Comb HAP	[9]	0	6.72E-06	2.94E-05	6.72E-06	2.94E-05
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Naphthalene	Naphthalene	Y	436	long tons/hour	364400	4.72E-06	lb/long ton	Comb HAP	[9]	0	2.31E-03	1.01E-02	2.31E-03	1.01E-02
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Phenanthrene	Phenanthrene		436	long tons/hour	364400	8.43E-08	lb/long ton	Comb HAP	[9]	0	4.12E-05	1.80E-04	4.12E-05	1.80E-04
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Phenol	Phenol	Y	436	long tons/hour	364400	5.00E-07	lb/long ton	Comb HAP	[9]	0	2.44E-04	1.07E-03	2.44E-04	1.07E-03
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Propane	Propane		436	long tons/hour	364400	9.18E-04	lb/long ton	Comb HAP	[9]	0	4.48E-01	1.96E+00	4.48E-01	1.96E+00
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Propionaldehyde	Propionaldehyde	Y	436	long tons/hour	364400	1.19E-05	lb/long ton	Comb HAP	[9]	0	5.79E-03	2.54E-02	5.79E-03	2.54E-02
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Pyrene	Pyrene		436	long tons/hour	364400	1.78E-08	lb/long ton	Comb HAP	[9]	0	8.67E-06	3.80E-05	8.67E-06	3.80E-05
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Styrene	Styrene	Y	436	long tons/hour	364400	7.80E-07	lb/long ton	Comb HAP	[9]	0	3.81E-04	1.67E-03	3.81E-04	1.67E-03
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Tetrachloroethylene	tetrachloroethylene	Y	436	long tons/hour	364400	1.34E-06	lb/long ton	Comb HAP	[9]	0	6.56E-04	2.87E-03	6.56E-04	2.87E-03
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Toluene	Toluene	Y	436	long tons/hour	364400	2.59E-05	lb/long ton	Comb HAP	[9]	0	1.27E-02	5.54E-02	1.27E-02	5.54E-02
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Trichloroethane, 1,1,1	richloroethane, 1,1	Y	436	long tons/hour	364400	9.86E-07	lb/long ton	Comb HAP	[9]	0	4.82E-04	2.11E-03	4.82E-04	2.11E-03
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Vinyl acetate	Vinyl acetate	Y	436	long tons/hour	364400	2.37E-07	lb/long ton	Comb HAP	[9]	0	1.16E-04	5.07E-04	1.16E-04	5.07E-04
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Xylene	Xylene	Y	436	long tons/hour	364400	1.16E-06	lb/long ton	Comb HAP	[9]	0	5.64E-04	2.47E-03	5.64E-04	2.47E-03
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Polycyclic Organic Material	POM	Y	436	long tons/hour	364400	1.95E-06	lb/long ton	Comb HAP	[9]	0	9.51E-04	4.17E-03	9.51E-04	4.17E-03
EQUI 3	EU315	SV144	STRU 155	L6 Waste Gas Stack	Total HAP	Total HAPs		436	long tons/hour	364400	--	--	--	--	0	24.48	107.22	24.48	107.22

Line 7 Waste Gas Stack

EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	PM	PM		436	long tons/hour	370222	0.0149	gr/dscf	MACT	[4]	97.1	1634	7,156	47.28	207.10
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	PM10	PM10		436	long tons/hour	370222	0.0144	gr/dscf	Varies	[4]	92.2	584	2,558	45.58	199.64
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	PM2.5	PM2.5		436	long tons/hour	370222	0.0118	gr/dscf	Varies	[4]	87.3	293	1,284	37.31	163.43
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	PM Cond	PM Cond		436	long tons/hour	370222	0.003	gr/dscf	P. Test	[4]	0	8.89	38.92	8.89	38.92
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	CO	CO		436	long tons/hour	370222	0.0680	lb/long ton	P. Test	[12]	0	29.7	129.9	29.7	129.9
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	NOx	NOx		436	long tons/hour	370222	N/A	N/A	CEMS data	[13]	0	528	2,314	528	COMG 37
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	VOC	VOC		436	long tons/hour	370222	0.0326	lb/long ton	P. Test	[12]	0	14.2	62.2	14.2	62.2
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	SO2	Sox		436	long tons/hour	370222	N/A	N/A	CEMS data	[13]	30	246	1,079	172	755
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Sulfuric Acid Mist (SAM)	lfuric Acid Mist (SAM)		436	long tons/hour	370222	3.24E-04	lb/long ton	P. Test	[5]	0	1.41E-01	6.18E-01	1.41E-01	6.18E-01
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	CO2	CO2		436	long tons/hour	370222	--	--	--	[1]	0	93,792	410,809	93,792.0	410,809
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	CH4	CH4		436	long tons/hour	370222	--	--	--	[1]	0	12.7	55.5	12.7	55.5
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	N2O	N2O		436	long tons/hour	370222	--	--	--	[1]	0	1.3	5.8	1.3	5.8
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	CO2e	CO2e		436	long tons/hour	370222	--	--	--	[1]	0	94,468	413,771	94,468.2	413,771
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Dioxin and Furan Emissions from Coal Combustion														
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)		436	long tons/hour	370222	4.46E-13	lb/ton	AP-42	[10]	0	2.18E-10	9.55E-10	2.18E-10	9.55E-10
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	TCDD (Total PCDD)	TCDD (Total PCDD)		436	long tons/hour	370222	2.08E-11	lb/ton	AP-42	[10]	0	1.02E-08	4.45E-08	1.02E-08	4.45E-08
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Dibenzofurans (Total PCDF)	Dibenzofurans (Total PCDF)		436	long tons/hour	370222	3.40E-11	lb/ton	AP-42	[10]	0	1.66E-08	7.28E-08	1.66E-08	7.28E-08
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Total PCDD/PCDF	Total PCDD/PCDF	Y	436	long tons/hour	370222	5.48E-11	lb/ton	AP-42	[10]	0	2.68E-08	1.17E-07	2.68E-08	1.17E-07
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Induration HAP Emissions														
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Antimony (Sb)	Antimony (Sb)	Y	436	long tons/hour	370222	1.80E-07	lb/long ton	P. Test	[8]	0	7.85E-05	3.44E-04	7.85E-05	3.44E-04
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Arsenic (As)	Arsenic	Y	436	long tons/hour	370222	1.80E-04	lb/long ton	P. Test	[8]	0	7.85E-02	3.44E-01	7.85E-02	3.44E-01
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Beryllium (Be)	Beryllium	Y	436	long tons/hour	370222	6.55E-07	lb/long ton	P. Test	[8]	0	2.86E-04	1.25E-03	2.86E-04	1.25E-03
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Cadmium (Cd)	Cadmium	Y	436	long tons/hour	370222	6.96E-07	lb/long ton	P. Test	[8]	0	3.03E-04	1.33E-03	3.03E-04	1.33E-03
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Chromium (Cr)	Chromium	Y	436	long tons/hour	370222	2.40E-05	lb/long ton	P. Test	[8]	0	1.05E-02	4.58E-02	1.05E-02	4.58E-02
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Cobalt (Co)	Cobalt	Y	436	long tons/hour	370222	5.76E-07	lb/long ton	P. Test	[8]	0	2.51E-04	1.10E-03	2.51E-04	1.10E-03
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Lead	Lead	Y	436	long tons/hour	370222	9.24E-05	lb/long ton	P. Test	[8]	0	4.03E-02	1.76E-01	4.03E-02	1.76E-01
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Manganese (Mn)	Manganese	Y	436	long tons/hour	370222	7.44E-05	lb/long ton	P. Test	[8]	0	3.24E-02	1.42E-01	3.24E-02	1.42E-01
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Mercury	Mercury	Y	436	long tons/hour	370222	1.94E-05	lb/long ton	P. Test	[11]	0	8.48E-03	3.71E-02	8.48E-03	3.71E-02
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Nickel (Ni)	Nickel	Y	436	long tons/hour	370222	9.12E-06	lb/long ton	P. Test	[8]	0	3.98E-03	1.74E-02	3.98E-03	1.74E-02
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Phosphorus (P)	Phosphorus	Y	436	long tons/hour	370222	3.84E-05	lb/long ton	P. Test	[8]	0	1.67E-02	7.33E-02	1.67E-02	7.33E-02
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Selenium (Se)	Selenium	Y	436	long tons/hour	370222	2.52E-05	lb/long ton	P. Test	[8]	0	1.10E-02	4.81E-02	1.10E-02	4.81E-02
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Hydrogen Chloride	Hydrogen Chloride	Y	436	long tons/hour	370222	1.80E-03	lb/long ton	P. Test	[8]	0	7.85E-01	3.44E+00	7.85E-01	3.44E+00
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Hydrogen Fluoride	Hydrogen Fluoride	Y	436	long tons/hour	370222	5.04E-03	lb/long ton	P. Test	[8]	0	2.20E+00	9.62E+00	2.20E+00	9.62E+00

EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Fluorides	Fluorides	Y	436	long tons/hour	370222	1.88E-03	lb/long ton	P-Test	[12]	0	8.19E-01	3.59E+00	8.19E-01	3.59E+00
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Combustion HAP Emissions														
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Acenaphthene	Acenaphthene		436	long tons/hour	370222	8.82E-08	lb/long ton	Comb HAP	[9]	0	4.31E-05	1.89E-04	4.31E-05	1.89E-04
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Acenaphthylene	Acenaphthylene		436	long tons/hour	370222	7.80E-09	lb/long ton	Comb HAP	[9]	0	3.81E-06	1.67E-05	3.81E-06	1.67E-05
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Acetaldehyde	Acetaldehyde	Y	436	long tons/hour	370222	1.78E-05	lb/long ton	Comb HAP	[9]	0	8.69E-03	3.81E-02	8.69E-03	3.81E-02
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Acetophenone	Acetophenone	Y	436	long tons/hour	370222	4.68E-07	lb/long ton	Comb HAP	[9]	0	2.29E-04	1.00E-03	2.29E-04	1.00E-03
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Acrolein	Acrolein	Y	436	long tons/hour	370222	9.05E-06	lb/long ton	Comb HAP	[9]	0	4.42E-03	1.94E-02	4.42E-03	1.94E-02
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Anthracene	Anthracene		436	long tons/hour	370222	6.56E-09	lb/long ton	Comb HAP	[9]	0	3.20E-06	1.40E-05	3.20E-06	1.40E-05
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Barium Compounds	Barium Compounds		436	long tons/hour	370222	2.52E-06	lb/long ton	Comb HAP	[9]	0	1.23E-03	5.40E-03	1.23E-03	5.40E-03
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Benzene	Benzene	Y	436	long tons/hour	370222	4.06E-05	lb/long ton	Comb HAP	[9]	0	1.98E-02	8.68E-02	1.98E-02	8.68E-02
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Benz(a)anthracene	benzo(a)anthracene		436	long tons/hour	370222	1.68E-08	lb/long ton	Comb HAP	[9]	0	8.18E-06	3.58E-05	8.18E-06	3.58E-05
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Benzo(a)pyrene	Benzo(a)pyrene		436	long tons/hour	370222	1.19E-09	lb/long ton	Comb HAP	[9]	0	5.79E-07	2.54E-06	5.79E-07	2.54E-06
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Benzo(b)fluoranthene	enzo(b)fluoranthene		436	long tons/hour	370222	6.18E-09	lb/long ton	Comb HAP	[9]	0	3.02E-06	1.32E-05	3.02E-06	1.32E-05
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Benzo(g,h,i)perylene	benzo(g,h,i)perylene		436	long tons/hour	370222	9.44E-09	lb/long ton	Comb HAP	[9]	0	4.61E-06	2.02E-05	4.61E-06	2.02E-05
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Benzo(k)fluoranthene	enzo(k)fluoranthene		436	long tons/hour	370222	6.18E-09	lb/long ton	Comb HAP	[9]	0	3.02E-06	1.32E-05	3.02E-06	1.32E-05
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Benzyl chloride	Benzyl chloride	Y	436	long tons/hour	370222	2.19E-05	lb/long ton	Comb HAP	[9]	0	1.07E-02	4.67E-02	1.07E-02	4.67E-02
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Biphenyl	Biphenyl	Y	436	long tons/hour	370222	5.31E-08	lb/long ton	Comb HAP	[9]	0	2.59E-05	1.14E-04	2.59E-05	1.14E-04
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Bis(2-ethylhexyl)phthalate (DEH)	hylhexyl)phthalate	Y	436	long tons/hour	370222	2.28E-06	lb/long ton	Comb HAP	[9]	0	1.11E-03	4.87E-03	1.11E-03	4.87E-03
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Bromoform	Bromoform	Y	436	long tons/hour	370222	1.22E-06	lb/long ton	Comb HAP	[9]	0	5.95E-04	2.60E-03	5.95E-04	2.60E-03
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Butane	Butane		436	long tons/hour	370222	1.20E-03	lb/long ton	Comb HAP	[9]	0	5.88E-01	2.58E+00	5.88E-01	2.58E+00
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Carbon disulfide	Carbon disulfide	Y	436	long tons/hour	370222	4.06E-06	lb/long ton	Comb HAP	[9]	0	1.98E-03	8.68E-03	1.98E-03	8.68E-03
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Chloroacetophenone (2-)	oroacetophenone	Y	436	long tons/hour	370222	2.19E-07	lb/long ton	Comb HAP	[9]	0	1.07E-04	4.67E-04	1.07E-04	4.67E-04
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Chlorobenzene	Chlorobenzene	Y	436	long tons/hour	370222	6.87E-07	lb/long ton	Comb HAP	[9]	0	3.35E-04	1.47E-03	3.35E-04	1.47E-03
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Chloroform	Chloroform	Y	436	long tons/hour	370222	1.84E-06	lb/long ton	Comb HAP	[9]	0	8.99E-04	3.94E-03	8.99E-04	3.94E-03
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Chrysene	Chrysene		436	long tons/hour	370222	9.95E-09	lb/long ton	Comb HAP	[9]	0	4.86E-06	2.13E-05	4.86E-06	2.13E-05
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Cumene	Cumene	Y	436	long tons/hour	370222	1.65E-07	lb/long ton	Comb HAP	[9]	0	8.08E-05	3.54E-04	8.08E-05	3.54E-04
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Cyanide	Cyanide	Y	436	long tons/hour	370222	7.80E-05	lb/long ton	Comb HAP	[9]	0	3.81E-02	1.67E-01	3.81E-02	1.67E-01
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Dibenz(a,h)anthracene	benz(a,h)anthracene		436	long tons/hour	370222	6.98E-09	lb/long ton	Comb HAP	[9]	0	3.41E-06	1.49E-05	3.41E-06	1.49E-05
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Dichlorobenzenes	Dichlorobenzenes	Y	436	long tons/hour	370222	6.88E-07	lb/long ton	Comb HAP	[9]	0	3.36E-04	1.47E-03	3.36E-04	1.47E-03
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Dimethylbenzo(a)anthracene, 7	benzo(a)anthracene, 7,		436	long tons/hour	370222	9.18E-09	lb/long ton	Comb HAP	[9]	0	4.48E-06	1.96E-05	4.48E-06	1.96E-05
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Dimethyl sulfate	Dimethyl sulfate	Y	436	long tons/hour	370222	1.50E-06	lb/long ton	Comb HAP	[9]	0	7.32E-04	3.21E-03	7.32E-04	3.21E-03
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Dinitrotoluene 2,4	Dinitrotoluene 2,4	Y	436	long tons/hour	370222	8.74E-09	lb/long ton	Comb HAP	[9]	0	4.27E-06	1.87E-05	4.27E-06	1.87E-05
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Ethyl benzene	Ethylbenzene	Y	436	long tons/hour	370222	2.93E-06	lb/long ton	Comb HAP	[9]	0	1.43E-03	6.28E-03	1.43E-03	6.28E-03
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Ethyl chloride	Ethylchloride	Y	436	long tons/hour	370222	1.31E-06	lb/long ton	Comb HAP	[9]	0	6.40E-04	2.80E-03	6.40E-04	2.80E-03
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	ethylene dibromide	Ethylene dibromide	Y	436	long tons/hour	370222	3.75E-08	lb/long ton	Comb HAP	[9]	0	1.83E-05	8.01E-05	1.83E-05	8.01E-05
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	ethylene dichloride	Ethylene dichloride	Y	436	long tons/hour	370222	1.25E-06	lb/long ton	Comb HAP	[9]	0	6.10E-04	2.67E-03	6.10E-04	2.67E-03
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Fluoranthene	Fluoranthene		436	long tons/hour	370222	2.22E-08	lb/long ton	Comb HAP	[9]	0	1.08E-05	4.74E-05	1.08E-05	4.74E-05
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Fluorene	Fluorene		436	long tons/hour	370222	2.84E-08	lb/long ton	Comb HAP	[9]	0	1.39E-05	6.08E-05	1.39E-05	6.08E-05
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Formaldehyde	Formaldehyde	Y	436	long tons/hour	370222	1.38E-04	lb/long ton	Comb HAP	[9]	0	6.73E-02	2.95E-01	6.73E-02	2.95E-01
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Hexane	Hexane	Y	436	long tons/hour	370222	1.03E-03	lb/long ton	Comb HAP	[9]	0	5.04E-01	2.21E+00	5.04E-01	2.21E+00
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Hydrogen Chloride (as Cl)	Hydrogen Chloride	Y	436	long tons/hour	370222	3.75E-02	lb/long ton	Comb HAP	[9]	0	1.83E+01	8.01E+01	1.83E+01	8.01E+01
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Hydrogen Fluoride (as F)	Hydrogen Fluoride	Y	436	long tons/hour	370222	4.68E-03	lb/long ton	Comb HAP	[9]	0	2.29E+00	1.00E+01	2.29E+00	1.00E+01
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Indeno(1,2,3-cd)pyrene	leno(1,2,3-cd)pyrene		436	long tons/hour	370222	8.94E-09	lb/long ton	Comb HAP	[9]	0	4.37E-06	1.91E-05	4.37E-06	1.91E-05
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Isophorone	Isophorone	Y	436	long tons/hour	370222	1.81E-05	lb/long ton	Comb HAP	[9]	0	8.84E-03	3.87E-02	8.84E-03	3.87E-02
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Magnesium Compounds	gnesium Compounds		436	long tons/hour	370222	3.43E-04	lb/long ton	Comb HAP	[9]	0	1.68E-01	7.35E-01	1.68E-01	7.35E-01
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Methyl bromide	Methyl bromide	Y	436	long tons/hour	370222	5.00E-06	lb/long ton	Comb HAP	[9]	0	2.44E-03	1.07E-02	2.44E-03	1.07E-02
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Methyl chloride	Methyl chloride	Y	436	long tons/hour	370222	1.65E-05	lb/long ton	Comb HAP	[9]	0	8.08E-03	3.54E-02	8.08E-03	3.54E-02
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Methyl chrysene 5	Methyl chrysene 5		436	long tons/hour	370222	6.87E-10	lb/long ton	Comb HAP	[9]	0	3.35E-07	1.47E-06	3.35E-07	1.47E-06
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Methylcholanthrene, 3-	ethylcholanthrene, 3-		436	long tons/hour	370222	1.03E-09	lb/long ton	Comb HAP	[9]	0	5.04E-07	2.21E-06	5.04E-07	2.21E-06
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Methyl ethyl ketone	Methyl ethyl ketone		436	long tons/hour	370222	1.22E-05	lb/long ton	Comb HAP	[9]	0	5.95E-03	2.60E-02	5.95E-03	2.60E-02
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Methyl hydrazine	Methyl hydrazine	Y	436	long tons/hour	370222	5.31E-06	lb/long ton	Comb HAP	[9]	0	2.59E-03	1.14E-02	2.59E-03	1.14E-02
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Methyl methacrylate	Methyl methacrylat	Y	436	long tons/hour	370222	6.24E-07	lb/long ton	Comb HAP	[9]	0	3.05E-04	1.34E-03	3.05E-04	1.34E-03
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Methyl tert butyl ether	ethyl tert butyl ethe	Y	436	long tons/hour	370222	1.09E-06	lb/long ton	Comb HAP	[9]	0	5.34E-04	2.34E-03	5.34E-04	2.34E-03
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Methylene chloride	Methylene chloride	Y	436	long tons/hour	370222	9.05E-06	lb/long ton	Comb HAP	[9]	0	4.42E-03	1.94E-02	4.42E-03	1.94E-02
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Methylnaphthalene, 2-	ethylnaphthalene, 2-		436	long tons/hour	370222	1.38E-08	lb/long ton	Comb HAP	[9]	0	6.72E-06	2.94E-05	6.72E-06	2.94E-05
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Naphthalene	Naphthalene	Y	436	long tons/hour	370222	4.72E-06	lb/long ton	Comb HAP	[9]	0	2.31E-03	1.01E-02	2.31E-03	1.01E-02
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Phenanthrene	Phenanthrene		436	long tons/hour	370222	8.43E-08	lb/long ton	Comb HAP	[9]	0	4.12E-05	1.80E-04	4.12E-05	1.80E-04
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Phenol	Phenol	Y	436	long tons/hour	370222	5.00E-07	lb/long ton	Comb HAP	[9]	0	2.44E-04	1.07E-03	2.44E-04	1.07E-03
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Propane	Propane		436	long tons/hour	370222	9.18E-04	lb/long ton	Comb HAP	[9]	0	4.48E-01	1.96E+00	4.48E-01	1.96E+00
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Propionaldehyde	Propionaldehyde	Y	436	long tons/hour	370222	1.19E-05	lb/long ton	Comb HAP	[9]	0	5.79E-03	2.54E-02	5.79E-03	2.54E-02
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Pyrene	Pyrene		436	long tons/hour	370222	1.78E-08	lb/long ton	Comb HAP	[9]	0	8.67E-06	3.80E-05	8.67E-06	3.80E-05
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Styrene	Styrene	Y	436	long tons/hour	370222	7.80E-07	lb/long ton	Comb HAP	[9]	0	3.81E-04	1.67E-03	3.81E-04	1.67E-03
EQUI 179	EU334	SV151	STRU 69	L7 Waste Gas Stack	Tetrachloroethylene	tetrachloroethylene	Y	436	long tons/hour	370222	1.34E-06	lb/long							

Note: The 95% UPL emission factors in this spreadsheet are **not** being used to calculate PTE of waste gas stacks. This is included for information purposes. PTE of waste gas stacks is calculated based on Taconite MACT limit of 0.01 gr/dscf.

*Total PM = Filterable PM + inorganic condensables + organic condensables

purple = pre-low NOx burners

Line 3 waste gas stack				lb/LT	Line 4 waste gas stack				lb/LT	Line 5 waste gas stack				lb/LT	Line 6 waste gas stack				lb/LT	Line 7 waste gas stack				lb/LT
Test Date	Pollutant	Result (lb/hr)	Pellet production rate (LT/hr)		Test Date	Pollutant	Result (lb/hr)	Pellet production rate (LT/hr)		Test Date	Pollutant	Result (lb/hr)	Pellet production rate (LT/hr)		Test Date	Pollutant	Result (lb/hr)	Pellet production rate (LT/hr)		Test Date	Pollutant	Result (lb/hr)	Pellet production rate (LT/hr)	
5/7/2015	PM -filterable	20.9	238.5	0.08763	5/8/2015	PM -filterable	45.8	393	0.11654	9/16/2015	PM -filterable	44	385	0.11429	5/13/2014	PM -filterable	31.4	412	0.07621	5/13/2014	PM -filterable	24.7	408	
5/7/2015	PM -filterable	16.0	235.3	0.06800	5/8/2015	PM -filterable	50.5	391	0.12916	9/16/2015	PM -filterable	38	389	0.09769	5/13/2014	PM -filterable	24.6	412	0.05971	5/13/2014	PM -filterable	26.4	406	
5/7/2015	PM -filterable	15.3	237.7	0.06437	5/8/2015	PM -filterable	48.0	391	0.12276	9/16/2015	PM -filterable	33	391	0.08440	5/13/2014	PM -filterable	27.2	412	0.06602	5/13/2014	PM -filterable	29.3	408	
5/7/2015	Total PM	24.4	238.5	0.10231	6/13/2017	PM -filterable	16.6	384	0.04323	9/16/2015	Total PM	49	385	0.12727	4/20/2016	PM -filterable	18.0	403.0	0.04467	5/3/2016	PM -filterable	23.87	379.9	
5/7/2015	Total PM	19.0	235.3	0.08075	6/13/2017	PM -filterable	15.6	379	0.04116	9/16/2015	Total PM	43	389	0.11054	4/20/2016	PM -filterable	16.1	407.9	0.03947	5/3/2016	PM -filterable	24.19	383.7	
5/7/2015	Total PM	19.3	237.7	0.08119	6/13/2017	PM -filterable	15.9	380	0.04184	9/16/2015	Total PM	37	391	0.09463	4/20/2016	PM -filterable	15.2	414.7	0.03665	5/3/2016	PM - filterable	24.20	385.9	
5/31/2017	PM -filterable	17.1	239	0.07155	6/13/2017	Total PM	33.3	384	0.08672	6/15/2017	PM -filterable	18.67	378	0.04939	4/20/2016	Total PM	21.6	403.0	0.05360	6/21/2018	PM -filterable	25.7	377.5	
5/31/2017	PM -filterable	19.0	239	0.07950	6/13/2017	Total PM	33.5	379	0.08839	6/15/2017	PM -filterable	19.27	380	0.05071	4/20/2016	Total PM	19.4	407.9	0.04756	6/21/2018	PM -filterable	23.7	380.6	
5/31/2017	PM -filterable	19.0	243	0.07819	6/13/2017	Total PM	34.2	380	0.09000	6/15/2017	PM -filterable	22.59	382	0.05914	4/20/2016	Total PM	17.0	414.7	0.04099	6/21/2018	PM - filterable	23.8	383.3	
4/25/2019	PM -filterable	15.87	193	0.08223	4/30/2019	PM -filterable	22.64	402	0.05632	4/23/2019	PM -filterable	16.52	410	0.04029	6/19/2018	PM -filterable	22.07	403.9	0.05464	8/11/2020	PM -filterable	23.75	401	
4/25/2019	PM -filterable	18.51	199	0.09302	4/30/2019	PM -filterable	26.03	405	0.06427	4/23/2019	PM -filterable	16.01	409	0.03914	6/19/2018	PM -filterable	20.46	403.0	0.05077	8/11/2020	PM -filterable	22.73	403	
4/25/2019	PM -filterable	17.20	198	0.08687	4/30/2019	PM -filterable	28.54	398	0.07171	4/23/2019	PM -filterable	16.32	407	0.04010	6/19/2018	PM -filterable	22.74	402.4	0.05651	8/11/2020	PM -filterable	22.45	403	
4/25/2019	Total PM	22.08	193	0.11440	4/12/2022	PM -filterable	37.0	393	0.09415	4/23/2019	Total PM	26.49	410	0.06461	4/7/2020	PM -filterable	14.63	403	0.03630	8/11/2020	Total PM	27.20	401	
4/25/2019	Total PM	25.32	199	0.12724	4/12/2022	PM -filterable	26.2	401	0.06534	4/23/2019	Total PM	24.92	409	0.06093	4/7/2020	PM -filterable	16.03	403	0.03978	8/11/2020	Total PM	26.16	403	
4/25/2019	Total PM	23.92	198	0.12081	4/12/2022	PM -filterable	32.8	406	0.08079	4/23/2019	Total PM	24.13	407	0.05929	4/7/2020	PM -filterable	14.08	402	0.03502	8/11/2020	Total PM	26.43	403	
5/10/2022	PM -filterable	18.3	234	0.07821	4/12/2022	Total PM	45.1	393	0.11476	4/8/2022	PM -filterable	18.3	438	0.04178	4/7/2020	Total PM	18.32	403	0.04546	5/3/2023	PM -filterable	10.17	405.00	
5/10/2022	PM -filterable	18.3	235	0.07787	4/12/2022	Total PM	32.4	401	0.08080	4/8/2022	PM -filterable	19.5	393	0.04962	4/7/2020	Total PM	17.27	403	0.04285	5/3/2023	PM -filterable	8.60	406.00	
5/10/2022	PM -filterable	17.9	235	0.07617	4/12/2022	Total PM	38.4	406	0.09458	4/8/2022	PM -filterable	20.3	349	0.05817	4/7/2020	Total PM	18.30	402	0.04552	5/3/2023	PM -filterable	9.71	410.00	
5/8/2024	PM -filterable	21.2	228	0.09298						5/7/2024	PM -filterable	18.5	388	0.04768										
5/8/2024	PM -filterable	25.5	224	0.11384						5/7/2024	PM -filterable	16	388	0.04124										
5/8/2024	PM -filterable	28.3	226	0.12522						5/7/2024	PM -filterable	14	396	0.03535										
5/8/2024	Total PM	24.5	228	0.10746						5/7/2024	Total PM	23.5	388	0.06057										
5/8/2024	Total PM	28.6	224	0.12768						5/7/2024	Total PM	25.6	388	0.06598										
5/8/2024	Total PM	31.6	226	0.13982						5/7/2024	Total PM	20.3	396	0.05126										

Suggested emission factors in bold-face based on a limited number of 3-run stack tests

Test date	Line 3	Avg lb/LT		Test date	Line 4	Avg lb/LT		Test date	Line 5	Avg lb/LT		Test date	Line 6	Avg lb/LT		Test date	Line 7	Avg lb/LT	
5/7/2015	PM -filterable	0.07333		5/8/2015	PM -filterable	0.12282	Pre-LNBs	9/16/2015	PM -filterable	0.09879	Pre-LNBs	5/13/2014	PM -filterable	0.06731		5/13/2014	PM -filterable	0.06579	
5/31/2017	PM -filterable	0.07641		6/13/2017	PM -filterable	0.04208		6/15/2017	PM -filterable	0.05308		4/20/2016	PM -filterable	0.04026		5/3/2016	PM -filterable	0.06286	
4/25/2019	PM -filterable	0.08737		4/30/2019	PM -filterable	0.06410		4/23/2019	PM -filterable	0.03985		6/19/2018	PM -filterable	0.05397		6/21/2018	PM -filterable	0.06415	
5/10/2022	PM -filterable	0.07742		4/12/2022	PM -filterable	0.08009		4/8/2022	PM -filterable	0.04986		4/7/2020	PM -filterable	0.03703		8/11/2020	PM -filterable	0.05711	
5/8/2024	PM -filterable	0.11068						5/7/2024	PM -filterable	0.04142		5/4/2023	PM -filterable	0.02358		5/3/2023	PM -filterable	0.02333	
	Mean	0.08504	95% UPL: 0.1207		Mean	0.06209	95% UPL: 0.1264		Mean	0.04605	95% UPL: 0.0630		Mean	0.04443	95% UPL: 0.0835		Mean	0.05465	95% UPL: 0.0962
	Stdev.s	0.01527			Stdev.s	0.01909			Stdev.s	0.00642			Stdev.s	0.01675			Stdev.s	0.01781	
	Count	5			Count	3			Count	4			Count	5			Count	5	
Test date	Line 3	Avg lb/LT	Total/Filter.	Test date	Line 4	Avg lb/LT	Total/Filter.	Test date	Line 5	Avg lb/LT	Total/Filter.	Test date	Line 6	Avg lb/LT	Total/Filter.	Test date	Line 7	Avg lb/LT	Total/Filter.
5/7/2015	Total PM	0.08808	1.20	6/13/2017	Total PM	0.08837	2.10	9/16/2015	Total PM	0.11084	1.12	4/20/2016	Total PM	0.04738	1.18	8/11/2020	Total PM	0.06611	1.16
4/25/2019	Total PM	0.12082	1.38	4/12/2022	Total PM	0.09671	1.21	4/23/2019	Total PM	0.06161	1.55	4/7/2020	Total PM	0.04461	1.20				
5/8/2024	Total PM	0.12499	1.13					5/7/2024	Total PM	0.05927	1.43								
	Mean	0.11129	95% UPL: 0.1794		Mean	0.09254	95% UPL: 0.1382		Mean	0.06044	95% UPL: 0.0732		Mean	0.04600	95% UPL: 0.0765				
	Stdev.s	0.02021			Stdev.s	0.00590			Stdev.s	0.00165			Stdev.s	0.00196					
	Count	3			Count	2			Count	2			Count	2					

Ratio of suggested PM factors Total/Filterable:

1.24

1.65

1.49

1.19

1.16

Notes: Alternative monitoring on particulate matter sampling at Minntac's Line 3 waste gas stack was requested in late 2006 and subsequently granted by EPA Region 5. (Metal emission test results for that request can be found at X:\Agency_Files\Mining Sector\Keetac\Title V Reissuance\PTE Calculations - working file\PTE Existing Facility Keetac.xlsx, "HAP test results" tab, cells A40:Q61.)

With this approved alternative method, a heated probe is used to sample particulate matter in the waste gas stream at Line 3 to minimize the impact of dissolved salts attributed to pH-adjusted scrubbing liquid used for the wet scrubber, which was installed and operated recently then. (HJ, 4/6/2023)

Note: All VOC results reported as THC, lb/hr as propane; all Fluoride results determined with Method 13B; all CO results determined with Method 10.

Line 3				lb/LT	Line 4				lb/LT	Line 5				lb/LT	Line 6				lb/LT	Line 7				lb/LT
Test Date	Pollutant	Result (lb/hr)	Fired Pellet Production rate (LT/hr)		Test Date	Pollutant	Result (lb/hr)	Fired Pellet Production rate (LT/hr)		Test Date	Pollutant	Result (lb/hr)	Fired Pellet Production rate (LT/hr)		Test Date	Pollutant	Result (lb/hr)	Fired Pellet Production rate (LT/hr)		Test Date	Pollutant	Result (lb/hr)	Fired Pellet Production rate (LT/hr)	
11/3/2009	Fluoride	0.60	223	0.00269	11/4/2009	Fluoride	2.60	399	0.00652	3/5/2009	Fluoride	0.69	393	0.00176	9/29/2009	Fluoride	0.61	419	0.00146	4/30/2009	Fluoride	0.49	419	0.00117
11/3/2009	Fluoride	0.23	224	0.00103	11/4/2009	Fluoride	1.31	393	0.00333	3/5/2009	Fluoride	1.03	393	0.00262	9/29/2009	Fluoride	0.73	427	0.00171	4/30/2009	Fluoride	0.44	420	0.00105
11/3/2009	Fluoride	0.47	224	0.00210	11/4/2009	Fluoride	0.49	394	0.00124	3/5/2009	Fluoride	2.78	390	0.00713	9/29/2009	Fluoride	1.03	430	0.00240	4/30/2009	Fluoride	0.49	420	0.00117
11/3/2009	VOC	4.89	223	0.02193	11/4/2009	VOC	7.02	399	0.01759	3/5/2009	VOC	6.2	393	0.01578	9/29/2009	VOC	4.29	419	0.01024	4/30/2009	VOC	4.44	419	0.01060
11/3/2009	VOC	3.90	224	0.01741	11/4/2009	VOC	8.24	393	0.02097	3/5/2009	VOC	6.2	393	0.01578	9/29/2009	VOC	4.70	427	0.01101	4/30/2009	VOC	4.34	420	0.01033
11/3/2009	VOC	4.51	224	0.02013	11/4/2009	VOC	7.68	394	0.01949	3/5/2009	VOC	5.9	390	0.01513	9/29/2009	VOC	3.78	430	0.00879	4/30/2009	VOC	2.36	420	0.00562
11/3/2009	CO	16.8	223	0.07534	11/4/2009	CO	72.8	399	0.18246	3/5/2009	CO	29.8	393	0.07583	9/29/2009	CO	26.5	419	0.06325	4/30/2009	CO	20.5	419	0.04893
11/3/2009	CO	16.6	224	0.07411	11/4/2009	CO	80.6	393	0.20509	3/5/2009	CO	27.0	393	0.06870	9/29/2009	CO	27.9	427	0.06534	4/30/2009	CO	22.3	420	0.05310
11/3/2009	CO	16.6	224	0.07411	11/4/2009	CO	75.8	394	0.19239	3/5/2009	CO	26.1	390	0.06692	9/29/2009	CO	29.9	430	0.06953	4/30/2009	CO	23.5	420	0.05595
2/18/2014	Fluoride	0.49	231	0.00212	2/19/2014	Fluoride	0.82	392	0.00209	2/20/2014	Fluoride	0.60	389	0.00154	4/24/2014	Fluoride	0.41	388	0.00106	4/22/2014	Fluoride	0.76	388	0.00196
2/18/2014	Fluoride	0.59	231	0.00255	2/19/2014	Fluoride	0.75	389	0.00193	2/20/2014	Fluoride	0.65	395	0.00165	4/24/2014	Fluoride	0.30	393	0.00076	4/22/2014	Fluoride	0.39	394	0.00099
2/18/2014	Fluoride	0.63	231	0.00273	2/19/2014	Fluoride	0.85	397	0.00214	2/20/2014	Fluoride	0.56	392	0.00143	4/24/2014	Fluoride	0.37	401	0.00092	4/22/2014	Fluoride	0.27	398	0.00068
2/18/2014	CO	14.5	231	0.06277	2/19/2014	CO	30.5	392	0.07781	2/20/2014	CO	25.9	389	0.06658	4/24/2014	CO	20.2	388	0.05206	4/22/2014	CO	21.1	388	0.05438
2/18/2014	CO	17.3	231	0.07489	2/19/2014	CO	32.6	389	0.08380	2/20/2014	CO	27.9	395	0.07063	4/24/2014	CO	20.3	393	0.05165	4/22/2014	CO	21.7	394	0.05508
2/18/2014	CO	15.2	231	0.06580	2/19/2014	CO	27.4	397	0.06902	2/20/2014	CO	32.6	392	0.08316	4/24/2014	CO	21.1	401	0.05262	4/22/2014	CO	23.1	398	0.05804
2/18/2014	VOC	3.10	231	0.01342	2/19/2014	VOC	6.25	392	0.01594	2/20/2014	VOC	5.79	389	0.01488	4/24/2014	VOC	6.86	388	0.01768	4/22/2014	VOC	10.06	388	0.02593
2/18/2014	VOC	3.39	231	0.01468	2/19/2014	VOC	3.81	389	0.00979	2/20/2014	VOC	6.55	395	0.01658	4/24/2014	VOC	5.60	393	0.01425	4/22/2014	VOC	8.73	394	0.02216
2/18/2014	VOC	3.48	231	0.01506	2/19/2014	VOC	5.16	397	0.01300	2/20/2014	VOC	6.45	392	0.01645	4/24/2014	VOC	5.39	401	0.01344	4/22/2014	VOC	8.45	398	0.02123
10/16/2018	Fluoride	0.24	231	0.00104	10/17/2018	Fluoride	0.32	487	0.00066	10/17/2018	Fluoride	0.27	409	0.00066	4/9/2019	Fluoride	0.13	407	0.00032	4/9/2019	Fluoride	0.15	419	0.00036
10/16/2018	Fluoride	0.22	228	0.00096	10/17/2018	Fluoride	0.31	489	0.00063	10/17/2018	Fluoride	0.21	409	0.00051	4/9/2019	Fluoride	0.13	407	0.00032	4/9/2019	Fluoride	0.15	420	0.00036
10/16/2018	Fluoride	0.23	228	0.00101	10/17/2018	Fluoride	0.35	492	0.00071	10/17/2018	Fluoride	0.22	407	0.00054	4/9/2019	Fluoride	0.13	405	0.00032	4/9/2019	Fluoride	0.17	413	0.00041
10/16/2018	CO	20.6	231	0.08918	10/17/2018	CO	26.1	487	0.05359	10/17/2018	CO	33.3	409	0.08142	4/9/2019	CO	16.0	407	0.03931	4/9/2019	CO	16.5	419	0.03938
10/16/2018	CO	19.2	228	0.08421	10/17/2018	CO	25.5	489	0.05215	10/17/2018	CO	32.5	409	0.07946	4/9/2019	CO	15.4	407	0.03784	4/9/2019	CO	15.6	420	0.03714
10/16/2018	CO	19.4	228	0.08509	10/17/2018	CO	27.3	492	0.05549	10/17/2018	CO	30.7	407	0.07543	4/9/2019	CO	15.0	405	0.03704	4/9/2019	CO	15.9	413	0.03850
10/16/2018	VOC	2.80	231	0.01212	10/17/2018	VOC	4.68	487	0.00961	10/17/2018	VOC	5.92	409	0.01447	4/9/2019	VOC	2.6	407	0.00639	4/9/2019	VOC	2.3	419	0.00549
10/16/2018	VOC	2.82	228	0.01237	10/17/2018	VOC	4.12	489	0.00843	10/17/2018	VOC	5.15	409	0.01259	4/9/2019	VOC	2.2	407	0.00541	4/9/2019	VOC	2.2	420	0.00524
10/16/2018	VOC	2.67	228	0.01171	10/17/2018	VOC	4.68	492	0.00951	10/17/2018	VOC	4.98	407	0.01224	4/9/2019	VOC	2.2	405	0.00543	4/9/2019	VOC	2.4	413	0.00581
9/19/2023	Fluoride	0.3	228	0.001316	9/21/2023	Fluoride	0.58	398	0.001457286	5/17/2022	CO	19.7	380	0.05184	4/25/2024	Fluoride	0.34	428	0.00079	5/19/2022	CO	21.8	392	0.05561
9/19/2023	Fluoride	0.19	228	0.000833	9/21/2023	Fluoride	0.7	393	0.00178117	5/18/2022	CO	24.9	389	0.06401	4/25/2024	Fluoride	0.31	426	0.00073	5/19/2022	CO	25.2	395	0.06380
9/19/2023	Fluoride	0.2	228	0.000877	9/21/2023	Fluoride	0.59	400	0.001475	5/18/2022	CO	22.6	207	0.10918	4/25/2024	Fluoride	0.27	426	0.00063	5/20/2022	CO	20.4	412	0.04951
9/19/2023	CO	16.5	228	0.072368	9/21/2023	CO	29.8	398	0.074874372	5/17/2022	HF	< 0.018	380	0.00005	4/25/2024	CO	14.1	428	0.03294	4/26/2024	Fluoride	0.32	417	0.00077
9/19/2023	CO	15.7	228	0.06886	9/21/2023	CO	29.8	393	0.075826972	5/18/2022	HF	< 0.018	389	0.00005	4/25/2024	CO	14.6	426	0.03427	4/26/2024	Fluoride	0.3	427	0.00070
9/19/2023	CO	15.3	228	0.067105	9/21/2023	CO	32.1	400	0.08025	5/18/2022	HF	< 0.019	207	0.00009	4/25/2024	CO	15.2	426	0.03568	4/26/2024	Fluoride	0.44	424	0.00104
9/19/2023	VOC	2.41	228	0.01057	9/21/2023	VOC	3.20	398	0.008040201	9/20/2023	Fluoride	0.61	385	0.00158	4/25/2024	VOC	3.8	428	0.00888	4/26/2024	CO	18.2	417	0.04365
9/19/2023	VOC	2.51	228	0.011009	9/21/2023	VOC	3.27	393	0.008320611	9/20/2023	Fluoride	0.53	386	0.00137	4/25/2024	VOC	3.3	426	0.00775	4/26/2024	CO	18.6	427	0.04356
9/19/2023	VOC	2.44	228	0.010702	9/21/2023	VOC	3.84	400	0.0096	9/20/2023	Fluoride	0.34	400	0.00085	4/25/2024	VOC	3	426	0.00704	4/26/2024	CO	18.4	424	0.04340
										9/20/2023	CO	27.8	385	0.07221						4/26/2024	VOC	2.9	417	0.00695
										9/20/2023	CO	30.5	386	0.07902						4/26/2024	VOC	2.8	427	0.00656
										9/20/2023	CO	29.4	400	0.07350						4/26/2024	VOC	2.5	424	0.00590
										9/20/2023	VOC	3.67	385	0.00953										
										9/20/2023	VOC	3.63	386	0.00940										
										9/20/2023	VOC	3.69	400	0.00923										

11/3/2009	CO	0.07452		11/4/2009	CO	0.19331		3/5/2009	CO	0.07048		9/29/2009	CO	0.06604		4/30/2009	CO	0.05266	
2/18/2014	CO	0.06782		2/19/2014	CO	0.07688		2/20/2014	CO	0.07346		4/24/2014	CO	0.05211		4/22/2014	CO	0.05583	
10/16/2018	CO	0.08616		10/17/2018	CO	0.05374		10/17/2018	CO	0.07877		4/9/2019	CO	0.03806		4/9/2019	CO	0.03834	
9/19/2023	CO	0.069444	Line 3 CO EF (lb/long ton):	9/21/2023	CO	0.07698	Line 4 CO EF (lb/long ton):	5/17/2022	CO	0.07501	Line 5 CO EF (lb/long ton):	4/25/2024	CO	0.03430	Line 6 CO EF (lb/long ton):	5/19/2022	CO	0.05631	Line 7 CO EF (lb/long ton):
								9/20/2023	CO	0.07491						4/26/2024	CO	0.04353	
Mean		0.07449	95% UPL:	Mean		0.10023	95% UPL:	Mean		0.07453	95% UPL:	Mean		0.04763	95% UPL:	Mean		0.04933	95% UPL:
Stdev.s		0.00829	0.096	Stdev.s		0.06301	0.266	Stdev.s		0.00299	0.082	Stdev.s		0.01447	0.086	Stdev.s		0.00801	0.068
Count		4		Count		4		Count		5		Count		4		Count		5	
First test date	Line 3	Avg lb/LT		First test date	Line 4	Avg lb/LT		First test date	Line 5	Avg lb/LT		First test date	Line 6	Avg lb/LT		First test date	Line 7	Avg lb/LT	
11/3/2009	Fluoride	0.00194		11/4/2009	Fluoride	0.00370		3/5/2009	Fluoride	0.00383		9/29/2009	Fluoride	0.00185		4/30/2009	Fluoride	0.00113	
2/18/2014	Fluoride	0.00247	Line 3 Fluoride	2/19/2014	Fluoride	0.00205	Line 4 Fluoride	2/20/2014	Fluoride	0.00154	Line 5 Fluoride	4/24/2014	Fluoride	0.00091	Line 6 Fluoride	4/22/2014	Fluoride	0.00121	Line 7 Fluoride
10/16/2018	Fluoride	0.00100	EF (lb/long	10/17/2018	Fluoride	0.00067	EF (lb/long	10/17/2018	Fluoride	0.00057	EF (lb/long	4/9/2019	Fluoride	0.00032	EF (lb/long	4/9/2019	Fluoride	0.00038	EF (lb/long
9/19/2023	Fluoride	0.00101	ton):	9/21/2023	Fluoride	0.00157	ton):	9/20/2023	Fluoride	0.00127	ton):	4/25/2024	Fluoride	0.00072	ton):	4/26/2024	Fluoride	0.00084	ton):
Mean		0.00160	95% UPL:	Mean		0.00200	95% UPL:	Mean		0.00180	95% UPL:	Mean		0.00095	95% UPL:	Mean		0.00089	95% UPL:
Stdev.s		0.00072	0.00351	Stdev.s		0.00127	0.00534	Stdev.s		0.00141	0.00552	Stdev.s		0.00065	0.00266	Stdev.s		0.00038	0.00188
Count		4		Count		4		Count		4		Count		4		Count		4	

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Table 20 - Fugitive Stockpile and Material Handling PTE Calculations

Stockpiles

Stock Pile	FS SOURCE	Theshold Friction Velocity (m/s)	Max. Acreage ¹	PM Emission Factor (lb/acre/day) ²	PM ₁₀ Emission Factor (lb/acre/day) ²	PM _{2.5} Emission Factor (lb/acre/day) ²	Max. Uncontrolled PM Emissions (tons/yr)	Max. Uncontrolled PM Emissions (lb/hr)	Max. Uncontrolled PM ₁₀ Emissions (tons/yr)	Max. Uncontrolled PM ₁₀ Emissions (lb/hr)	Max. Uncontrolled PM _{2.5} Emissions (tons/yr)	Max. Uncontrolled PM _{2.5} Emissions (lb/hr)
FS001 - FUGI 6 - Overburden Stock Pile	FS001	1.33	217	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ballast Feed Rock												
FS006 - FUGI 11 - East Pit	FS006	1.33	2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FS007 - FUGI 29 - West Pit	FS007	1.33	3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ballast Product Rock												
FS008 - FUGI 22 - East Pit	FS008	1.33	2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FS009 - FUGI 5 -West Pit	FS009	1.33	2.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ballast Fines												
FS010 - FUGI 4 - East Pit	FS010	1.33	1.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FS011 - FUGI 25 - West Pit	FS011	1.33	2.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FS012 - FUGI 3 - Coarse Tailings ³	FS012	0.60	24	1.45	0.72	0.11	6.35	1.45	3.17	0.72	0.48	0.11
FS013 - FUGI 27 - Scrap Rod	FS013	1.33	0.6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Group 13 Materials (2)												
FS014 - FUGI 24 - Feed	FS014	1.12	3	1.33	0.66	0.10	0.73	0.17	0.36	0.08	0.054	0.01
FS015 - FUGI 1 - Screened Pellets	FS015	1.12	0	1.33	0.66	0.10	0.00	0.00	0.00	0.00	0.00	0.00
FS016 - FUGI 10 - Group 13 Fines	FS016	1.02	0.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crude Ore Stock												
FS017-3- FUGI 14 - Steps 1/2	FS017	1.33	6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FS018-3 - FUGI 14 - Steps 3	FS018		5.48									
Concentrate												
FS021 - FUGI 15 - Step 1, 2, & 3	FS021	0.54	3	2.89	1.44	0.22	1.58	0.36	0.79	0.18	0.12	0.03
Pellet (3)												
FS022 - FUGI 23 - Main - Steps 1/2	FS022	1.12	2	1.33	0.66	0.10	0.48	0.11	0.24	0.06	0.04	0.01
FS023 - FUGI 17 - Auxillary - Steps 1/2	FS023	1.12	0	1.33	0.66	0.10	0.00	0.00	0.00	0.00	0.00	0.00
FS024 - FUGI 28 - Step 3	FS024	1.12	8	1.33	0.66	0.10	1.93	0.44	0.97	0.22	0.14	0.03
FS026 - FUGI 12 - Waste Rock Pile	FS026	1.33	432	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FS027 - FUGI 19 - Step I/II Crude Ore Stock Pile Temp 72	FS027	1.33	7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FS028 - FUGI 21 - Step III Crude Ore Stock Pile Temp 74	FS028	1.33	3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FS030 - FUGI 16 - Tailings Basin ³	FS030	0.20	1028	54.20	27.10	4.07	10168.65	2321.61	5084.42	1160.83	762.63	174.12

¹ Revised pile acreage based upon AEI 10 year look back maximum.

² Emission Factors calculated using AP-42 Table 13.2.5, Equation 2 and 2017-2021 fastest mile daily winds from Hibbing airport. Emission factor calculation in Wind Erosion Calculations.xlsx which is uploaded to the MPCA's Tempo database under the central file activity/IND20070001

³ The threshold friction velocity for the tailings was obtained from USS site specific particle size distribution. Threshold friction velocity calculation and documentation of particle size distribution in Wind Erosion Calculations.xls

Material Handling

[illegible]

FS017-1 - FUGI 14 - Steps 1/2 (in)	FS017	1,703,318	0.0009	0.00042	0.00006	0.75	0.35	0.05	0.0043	0.00202	0.00031	0.83
FS017-2 - FUGI 14 - Steps 1/2 (out)	FS017	1,686,653	0.0009	0.00042	0.00006	0.74	0.35	0.05	0.0043	0.00202	0.00031	0.82
FS018-1 - FUGI 14 - Step 3 (in)	FS018	1,017,350	0.0009	0.00042	0.00006	0.45	0.21	0.03	0.0043	0.00202	0.00031	0.49
FS018-2 - FUGI 14 - Steps 3 (out)	FS018	909,763	0.0009	0.00042	0.00006	0.40	0.19	0.03	0.0043	0.00202	0.00031	0.44
Concentrate												
FS021-1 - FUGI 15 - Step 1, 2, & 3 (in)	FS021	1,220,424	0.0019	0.0009	0.00014	1.17	0.55	0.08	0.0093	0.0044	0.00066	1.29
FS021-2 - FUGI 15 - Step 1, 2, & 3 (out)	FS021	1,364,139	0.0019	0.0009	0.00014	1.30	0.62	0.09	0.0093	0.0044	0.00066	1.44
Pellet (3)												
FS022-1 - FUGI 23 - Main - Steps 1/2 (in)	FS022	10,185,932	0.0053	0.0025	0.0004	26.91	12.73	1.93	0.0256	0.0121	0.0018	29.78
FS022-2 - FUGI 23 - Main - Steps 1/2 (out)	FS022	10,238,259	0.0053	0.0025	0.0004	27.05	12.79	1.94	0.0256	0.0121	0.0018	29.93
FS023-1 - FUGI 17 - Auxillary - Steps 1/2 (in)	FS023	461,375	0.0053	0.0025	0.0004	1.22	0.58	0.09	0.0256	0.0121	0.0018	1.35
FS023-1 - FUGI 17 - Auxillary - Steps 1/2 (out)	FS023	461,375	0.0053	0.0025	0.0004	1.22	0.58	0.09	0.0256	0.0121	0.0018	1.35
FS024-1 - FUGI 28 - Step 3 (in)	FS024	8,212,807	0.0053	0.0025	0.0004	21.70	10.26	1.55	0.0256	0.0121	0.0018	24.01
FS024-1 - FUGI 28 - Step 3 (out)	FS024	8,774,288	0.0053	0.0025	0.0004	23.18	10.96	1.66	0.0256	0.0121	0.0018	25.65
FS025-1 - FUGI 9 - Crude Ore to Truck	FS025	61,788,552	0.0009	0.00042	0.00006	27.16	12.85	1.95	0.0043	0.00202	0.00031	30.06
FS025-2 - FUGI 9 - Crude Ore to Stockpile - accounted for at FUGI 19 and FUGI 21	FS025	0	0.0009	0.00042	0.00006	0.00	0.00	0.00	0.0043	0.00202	0.00031	0.00
FS026-1 - FUGI 12 - Waste Rock Pile (into)	FS026	57,615,040	0.0005	0.0002	0.00004	14.87	7.03	1.06	0.0025	0.0012	0.00018	16.46
FS027-1 - FUGI 19 - Step I/II Crude Ore Stock Pile Temp 72 (in)	FS027	3,688,598	0.0009	0.00042	0.00006	1.62	0.77	0.12	0.0043	0.00202	0.00031	1.79
FS027-2 - FUGI 19 - Step I/II Crude Ore Stock Pile Temp 72 (out)	FS027	3,767,112	0.0009	0.00042	0.00006	1.66	0.78	0.12	0.0043	0.00202	0.00031	1.83
FS028-1 - FUGI 21 - Step III Crude Ore Stock Pile Temp 74 (in)	FS028	3,688,598	0.0009	0.00042	0.00006	1.62	0.77	0.12	0.0043	0.00202	0.00031	1.79
FS028-2 - FUGI 21 - Step III Crude Ore Stock Pile Temp 74 (out)	FS028	3,767,112	0.0009	0.00042	0.00006	1.66	0.78	0.12	0.0043	0.00202	0.00031	1.83

Material Handling Emission Factor Calculations

These sources can typically be thought of as 'drop points'. Material loading onto piles, loading into trucks from front end loaders, dumping out of trucks, etc.

Material Type	Moisture Content (%)	Description
Lump Ore	5.4	AP-42, Table 13.2.4-1, Typical Silt and Moisture Contents of Materials at Various Industries (1/95)
Tailings	2.2	AP-42, Table 11.9-3, Typical values for correction factors applicable to the predictive emission factor equations. Lowest moisture content value listed for bulldozing overturden.
Overburden	7.9	AP-42, Table 11.9-3, Geometric mean value for overburden bulldozing.
("Fresh") Concentrate	10	Assume concentrate dropping onto pile has same moisture content as the desired moisture content after vacuum filters in the process.
Stockpiled Concentrate	3.1	Lowest concentrate pile moisture content value in 'Iron Range Air Quality Analysis', MRI Project No. 4523-L(2), (6/5/79), Table 4-4, to represent concentrate after being dried by the wind.
Taconite Ore	1.5	"Pellet Ore" from AP-42, Table 13.2.4-1, Typical Silt and Moisture Contents of Materials at Various Industries (1/95)

Drop Point Emission Factor. AP-42, 13.2.4 Equation 1

$$E=k(0.0032)[(U/5)^{1.3}/(M/2)^{1.4}] \text{ (lb/ton)}$$

E = emission factor (lb/ton)

k = particle size multiplier (dimensionless), AP-42 13.2.4.

PM	0.74
PM10	0.35
PM2.5	0.053

M = material moisture content (%)

U = mean wind speed, miles per hour [mph]. Wind speeds for Hibbing Airport meteorological data for 2017-2021 in table below.

Table 11.9-3 (Metric And English Units). TYPICAL VALUES FOR CORRECTION FACTORS APPLICABLE TO THE PREDICTIVE EMISSION FACTOR EQUATIONS^a

Source	Correction Factor	Number Of Test Samples	Range	Geometric Mean	Units
Blasting	Area blasted	17	100 – 6,800	1,590	m ²
	Area blasted	17	1100 – 73,000	17,000	ft ²
Coal loading	Moisture	7	6.6 - 38	17.8	%
Bulldozers	Moisture	3	4.0 - 22.0	10.4	%
			6.0 - 11.3	8.6	%
Overburden	Moisture	8	2.2 - 16.8	7.9	%
			3.8 - 15.1	6.9	%
Dragline	Drop distance	19	1.5 - 30	8.6	m
			5 - 100	28.1	ft
Scraper	Moisture	7	0.2 - 16.3	3.2	%
	Silt	10	7.2 - 25.2	16.4	%
	Weight	15	33 - 64	48.8	Mg
	Weight	15	36 - 70	53.8	ton
Grader	Speed	7	8.0 - 19.0	11.4	kph
			5.0 - 11.8	7.1	mph
Haul truck	Silt content	61	1.2 – 19.2	4.3	%
	Moisture	60	0.3 – 20.1	2.4	%
	Weight	61	20.9 – 260	110	mg
	Weight	61	23.0 – 290	120	ton

Material	Particle Size	Particle Size Multiplier k	Short Term U (mph)	Annual U (mph)	Moisture Content (%)	Short Term (lb/ton)	Annual Emission (lb/ton)
Crude Ore	PM	0.74	22.9	6.80	5.4	0.00426	0.00088
	PM10	0.35	22.9	6.80	5.4	0.00202	0.00042
	PM2.5	0.053	22.9	6.80	5.4	0.00031	0.00006
Waste Material	PM	0.74	22.9	6.80	7.9	0.00250	0.00052
	PM10	0.35	22.9	6.80	7.9	0.00118	0.00024
	PM2.5	0.053	22.9	6.80	7.9	0.00018	0.00004
Fresh Concentrate	PM	0.74	22.9	6.80	10	0.00180	0.00037
	PM10	0.35	22.9	6.80	10	0.00085	0.00018
	PM2.5	0.053	22.9	6.80	10	0.00013	0.00003
Stockpiled Concentrate	PM	0.74	22.9	6.80	3.1	0.00927	0.00191
	PM10	0.35	22.9	6.80	3.1	0.00438	0.00090
	PM2.5	0.053	22.9	6.80	3.1	0.00066	0.00014
Coal	PM	0.74	22.9	6.80	5.4	0.00426	0.00088
	PM10	0.35	22.9	6.80	5.4	0.00202	0.00042
	PM2.5	0.053	22.9	6.80	5.4	0.00031	0.00006
Finished Pellets	PM	0.74	22.9	6.80	1.5	0.02561	0.00528
	PM10	0.35	22.9	6.80	1.5	0.01211	0.00250
	PM2.5	0.053	22.9	6.80	1.5	0.00183	0.00038
Tailings	PM	0.74	22.9	6.80	2.2	0.01498	0.00309
	PM10	0.35	22.9	6.80	2.2	0.00709	0.00146
	PM2.5	0.053	22.9	6.80	2.2	0.00107	0.00022

* Reference 1,6.

Hibbing Airport Meteorological Data Summary 2017-2021

Year		Mean Annual wind speed		Maximum Mean Daily Wind Speed (24-hr Period)	
		(m/s)	(mph)	(m/s)	(mph)
2017		3.04	6.80	8.54	19.1
2018		2.87	6.42	8.36	18.7
2019		2.92	6.53	10.24	22.9
2020		2.94	6.58	8.18	18.3
2021		2.80	6.26	8.00	17.9
Maximum		3.04	6.8	10.24	22.9

U. S. Steel Minntac - Title V Permit Renewal Application

Table 21 - Blasting (FS005/ FUGI 18) PTE Calculations

Blasting Parameters

weekly blasting frequency (blast/week)	4	N/A
yearly blasting frequency (blast/yr)	208	52 weeks per year
Total holes drilled/blasted (holes/yr)	36,596	based upon 2020-2023 forecast average
Horizontal Area of Blast, A (ft ² /blast)	601	total annual blast area by assumed blasts per year
ANFO used per blast (ton explosive/blast)	228	total annual ANFO (ton) by assumed blasts per year
Total Annual ANFO used (ton explosive/yr)	47,325	total annual ANFO (ton). Includes waste rock and ore rock quantities with associated powder factor.

Maximum Blasting Emissions

Pollutant	Emission Factor	Per Blast ^[1]	Hourly Average	Maximum Annual	Maximum Annual
		(lb/blast)	(lb/hr)	(lb/yr)	(ton/yr)
PM		0.206	0.206	42.9	0.02145
PM10		0.107	0.107	22.3	0.01115
PM2.5		0.0062	0.006	1.287	0.000644
Pollutant	(lb/ton explosive) ^[2]	(lb/blast)	(lb/hr)	(lb/yr)	(ton/yr)
CO	67	15,244	362	3,170,775	1,585
NOx	17	3,868	91.8	804,525	402
SOX	2.0	455	10.80	94,650	47.3
CO2	511	116,191	2,759	24,167,627	12,084
CH4	0.0207	4.71	0.1119	980	0.490
N2O	0.00414	0.94	0.0224	196.06	0.0980
CO2e	-	116,589	2,768	24,250,560	12,125

	A, Horizontal area of the blast (ft ²)	Material blasted tons (annual)	Powder Factor (pound/ton)	ANFO usage rate tons (pounds)	ANFO usage rate tons (tons)
Waste Rock	125,000	52,000,000	0.75	39,000,000	19,500
Ore Rock	125,000	53,000,000	1.05	55,650,000	27,825
Total ANFO usage				94,650,000	47,325

Annual material blasted based upon 2020-2021 and 2023 forecast

Blast area provided by Mine Engineering - typical pattern size

[1] Particulate Blasting Emission Factors

$$EF = (k)(0.000014)A^{1.5}$$

k (scaling factor)

PM	1
PM10	0.52
PM2.5	0.03

AP-42, Table 11-9.1 (10/98) for blasting as western surface coal mines, where A = blast area in ft²

[2] ANFO/Explosive Emission Factors

AP-42, Table 13.3-1 (2/1980) for ANFO with 5.8-8% fuel oil

Emulsion NO_x emission factors expected to be lower than ANFO, as noted in "NO_x Emission of Equipment and Blasting Agents in Surface Coal Mining", by A. Lashagari, C. Johnson, V. Kecojevic, B. Lusk, and JM Hoffman, Technical Paper, Oct. 2013, Mining Engineering Magazine. No sulfur known to be in emulsion explosives. No CO or greenhouse gas emission factors were identified for emulsion explosives either.

Greenhouse Gas Emissions assumed to result from Fuel Oil contribution to ANFO.

Fuel Oil Parameters

7.05 lb/gal, AP-42, Appendix A, for distillate fuel oil

0.138 MMBtu/gal, 40 CFR 98 Table C-1, Distillate Fuel Oil #2

8% Maximum fuel oil in ANFO, by weight, AP-42, Table 13.3-1

	Emission Factor	
	lb/MMBtu	lb/ton explosive
CO ₂	163.05	510.7
CH ₄	6.61E-03	0.0207
N ₂ O	1.32E-03	0.0041

Emission factors obtained from 40 CFR 98, Tables C-1 and C-2.

U. S. Steel Minntac - Title V Permit Renewal Application
Table 22 - Haul Roads PTE Calculations

Source	FS Look-up	SI Description	Average Weight (tons)	PM Emission Factor ^{1,2} (lb/VMT)	PM10 Emission Factor ^{1,2} (lb/VMT)	PM2.5 Emission Factor ¹ (lb/VMT)	Estimated VMT/yr ^{3,4}	Uncontrolled PM (tpy) ⁷	Uncontrolled PM (lb/hr) ⁷	Uncontrolled PM10 (tpy) ⁷	Uncontrolled PM10 (lb/hr) ⁷	Uncontrolled PM2.5 (tpy) ⁷	Uncontrolled PM2.5 (lb/hr) ⁷	Controlled PM (tpy) ⁷	Controlled PM (lb/hr) ⁷	Controlled PM10 (tpy) ⁷	Controlled PM10 (lb/hr) ⁷	Controlled PM2.5 (tpy) ⁷	Controlled PM2.5 (lb/hr) ⁷
FS002 - FUGI 8 - PD001	FS002	Crude Ore Hauling	305.5	23.59	6.24	0.62	1,900,000	22,410	5,116	5,932	1,354	593	135	2241.01	1023.29	593.18	270.86	59.32	27.09
FS002 - FUGI 8 - PD002	FS002	Waste Material Hauling	305.5	23.59	6.24	0.62	1,700,000	20,051	20,051	5,307	1,212	531	121	2005.11	915.58	530.74	242.35	53.07	24.23
FS002 - FUGI 8 - PD003	FS002	Coal Delivery Traffic	50.0	10.45	2.77	0.28	127.44	0.67	0.67	0.18	0.04	0.02	0.004	0.67	0.15	0.18	0.04	0.02	0.0040
FS003 - FUGI 20	FS003	Small Truck Traffic	3.0	1.93	1.08	0.08	3,600,000	3,474	3,474	1,944	444	140	32	347.40	158.63	194.40	88.77	14.03	6.41

Notes:

- (1) Reference AP-42, 13.2.2.2 Eq (1), 11/06
 $E = ((k*((s/12)^a)/((W/3)^b)))$
- (2) Small truck traffic PM and PM10 lb/VMT was based on 1998 MPCA Guidance on Air Emission Inventory - secondary vehicles default value.
- (3) VMT of Crude Hauling was based on historical lookback.
- (4) VMT of Waste Hauling was based on historical lookback.
- (5) VMT of Coal Delivery Traffic was based on historical lookback of # of trucks * distance of 0.03 miles.
- (6) VMT of Small Truck Traffic assumed a ratio of 1:1 of Crude Ore Hauling + Waste Material Hauling per 1998 MPCA Guidance.
- (7) For crude ore, waste material, and small truck traffic, assume a control efficiency from following the fugitive dust control plan.
- The fugitive dust control plan includes but is not limited to daily visible emission checks, corrective actions, and periodic application of water and other dust suppressants.
- The activities described and followed in the fugitive dust control plan provide control efficiencies of 80% for a 24-hour basis and 90% for an annual basis.
- The MPCA's Unpaved Haul Road Memo is the basis for the given control efficiencies.

Unpaved Roadways - PM Emission Factor Variables

Variable	Value	Source
k	4.9	Table 13.2.2-2
a	0.7	Table 13.2.2-2
b	0.45	Table 13.2.2-2
W	see above	See above tons based on vehicular data
M	0.2	% (default)
s	5.8	% (Table 13.2.2-1) Taconite Haul Road
p	115	Hibbing ASOS Daily Precip (2017)

Unpaved Roadways - PM10 Emission Factor Variables

Variable	Value	Units
k	1.5	Table 13.2.2-2
a	0.9	Table 13.2.2-2
b	0.45	Table 13.2.2-2
W	see above	See above tons based on vehicular data
M	0.2	% (default)
s	5.8	% (Table 13.2.2-1) Taconite Haul Road
p	115	Hibbing ASOS Daily Precip (2017)

Unpaved Roadways - PM2.5 Emission Factor Variables

Variable	Value	Units
k	0.15	Table 13.2.2-2
a	0.9	Table 13.2.2-2
b	0.45	Table 13.2.2-2
W	see above	See above tons based on vehicular data
M	0.2	% (default)
s	5.8	% (Table 13.2.2-1) Taconite Haul Road
p	115	Hibbing ASOS Daily Precip (2017)

HIBBING CHISHOLM HIBBING AIRPORT, MN US

Year	#Days with Precip >0.01 in [1]
2017	115
2018	75
2019	85
2020	56
2021	87

[1] 2018-2021 contain missing days of precipitation Jan-March, so excluded as an annual precipitation dataset

US Steel Corp - Minntac
Contractor Activities Emission Calculation
FUGI 36 - Contractor Activities

Activity	Minntac throughput 2017-2023	Safety Factor	units	
Metallic Fines	458,469	505,000	tons	concentrate, filter cake, etc.
Metallic Non-Fines	2,349,638	2,585,000	tons	ball mill balls, chips, sinter, pellets, ore, etc.
Non-Metallic	1,668,355	1,835,000	tons	fluxstone, rock, gravel, stemming, refractory, soil, road rock, filter rock, BFT, ballast.

		Pollutant	Maximum Throughput Rate		Emission Factors			Pollution Control Efficiency	Uncontrolled Emissions		Controlled Emissions Based on Control Efficiencies	
Material	Contractor Activity	Pollutant	Rate	Units	EF	EF Units	Source	Eff %	lb/hr	ton/yr	lb/hr	ton/yr
Ore concentrate	Fresh Concentrate Handling	PM	505,000	tons/yr	0.0018	lb/ton	AP-42	0	0.104	0.454	0.10	0.45
		PM10	505,000	tons/yr	0.0009	lb/ton	AP-42	0	0.049	0.215	0.05	0.21
		PM2.5	505,000	tons/yr	0.0001	lb/ton	AP-42	0	0.007	0.033	0.01	0.03
Pellets	Pellet Transfer and Handling	PM	2,585,000	tons/yr	0.0256	lb/ton	AP-42	0	7.557	33.102	7.56	33.10
		PM10	2,585,000	tons/yr	0.0121	lb/ton	AP-42	0	3.574	15.656	3.57	15.66
		PM2.5	2,585,000	tons/yr	0.0018	lb/ton	AP-42	0	0.541	2.371	0.54	2.37
Taconite Rock	Road Base Material	PM	1,835,000	tons/yr	0.0043	lb/ton	AP-42	0	0.893	3.910	0.89	3.91
		PM10	1,835,000	tons/yr	0.0020	lb/ton	AP-42	0	0.422	1.849	0.42	1.85
		PM2.5	1,835,000	tons/yr	0.0003	lb/ton	AP-42	0	0.064	0.280	0.06	0.28
Process Reject Material	Sinter and Blast Furnace Feed	PM	2,585,000	tons/yr	0.0256	lb/ton	AP-42	0	7.557	33.102	7.56	33.10
		PM10	2,585,000	tons/yr	0.0121	lb/ton	AP-42	0	3.574	15.656	3.57	15.66
		PM2.5	2,585,000	tons/yr	0.0018	lb/ton	AP-42	0	0.541	2.371	0.54	2.37
Crushing	Crushing metallic non-fines and non-metallic material to specified size	PM	4,420,000	tons/yr	0.0012	lb/ton	AP-42	0	0.605	2.652	0.61	2.65
		PM10	4,420,000	tons/yr	0.0005	lb/ton	AP-42	0	0.272	1.193	0.27	1.19
		PM2.5	4,420,000	tons/yr	0.0001	lb/ton	AP-42	0	0.050	0.221	0.05	0.22
		Total				PM		16.717	73.220	16.717	73.220	
		Total				PM10		7.893	34.570	7.893	34.570	
		Total				PM2.5		1.204	5.275	1.204	5.275	

Contractor activities located at the Minntac facility were described in a letter received on March 31, 2016 and updated with the Title V Reissuance.
A historical lookback (2006-2023) was used to determine appropriate throughput data. Maximum yearly data with safety factor is reflected in the throughput table above.
The contractor activities PTE was split up into different activities, as different activities use different emission factors.
Pellet handling is based on the metallic non-fines throughput value. (ton/yr)

Pellet handling emission factors are based on a drop point emission factors from AP-42, 13.2.4 Equation 1
Pellet handling emission factors are calculated and described in the 'FUGI Stockpile-MH WE Sources' tab of this spreadsheet.
Pellet handling emission factor for finished pellets handling.

Taconite rock road material handling is based on the non-metallic throughput value. (ton/yr)
Road material handling emission factors are based on a drop point emission factors from AP-42, 13.2.4 Equation 1
Road material handling emission factors are calculated and described in the 'FUGI Stockpile-MH WE Sources' tab of this spreadsheet.
Road material handling emission factor for crude ore handling.

Reject process material (sinter and blast furnace feed) is based on the metallic non-fines throughput value. (ton/yr)
Reject process material handling emission factors are based on a drop point emission factors from AP-42, 13.2.4 Equation 1
Reject process material handling emission factors are calculated and described in the 'FUGI Stockpile-MH WE Sources' tab of this spreadsheet.
Reject process material handling emission factor for finished pellets handling.

Material crushing. Both metallic non-fines and non-metallic material is crushed, therefore, the throughput value is the sum of the two. (ton/yr)
Emission factors are based on AP-42 Table 11.19.2-2 for Crushed Stone Processing Operations
Tertiary crushing (controlled) was chosen, as the contractors utilize a water spray to keep the material wet.
Emission factor for PM = 0.0012 lb PM / ton material
Emission factor for PM10 = 0.00054 lb PM10 / ton material
Emission factor for PM2.5 = 0.00010 lb PM2.5 / ton material

PTE is typically calculated by multiplying an emission factor based on the activity by the throughput at each drop point in the process. Since contractors can perform a variety of tasks, the specific activity (crushing, conveying, front end loader) is not known and the number of drop points is not known. Therefore, potential emissions were calculated as described below, which is a conservative approach.

Metallic fines activities are likely concentrate handling
Metallic non-fine activities are likely pellet transfer and handling, sinter and blast furnace feed handling, and crushing of the non-fines. Emissions for each activity were calculated and summed together for the total metallic non-fines value.
Non-metallic activities are likely road material handling and crushing of the non-metallic material. Emissions for each activity were calculated and summed together for the total non-metallic value.
Emissions for total contractor activities is the total metallic fines value, metallic non-fines value, plus the non-metallic value.

Cooling Towers - IA under 7007.1300, subp. 4

Process Name: Step 2 Cooling Tower (4 total) and Step 3 Cooling Tower - calculation below is for 1 cooling tower

Cooling Tower Reference Data						
Unit	Water Circulation Rate		Annual Operating Hrs	Drift ¹ (%)	TDS ² (ppmw)	TDS Specific Gravity ³
	gal/hr	lb/hr				
Cooling Tower (each)	54,000	450,360	8,760	0.001%	2,000	2.2

- ¹ Drift rate assumed based on industry standard.
- ² Total dissolved solids (TDS) assumed.
- ³ TDS specific gravity corresponding to NaCl.

Calculations

Cooling Tower Particulate Emissions Size Distribution
(based on paper by Reisman and Frisbie, "Calculating Realistic PM10 Emissions from Cooling Tower")

Volume of drift droplet = $(4/3)\pi(D_d/2)^3$ [Eq. 1]

Mass of solids in drift droplet = $(TDS)(\rho_w)(\text{Volume of drift droplet})$ [Eq. 2]

Solid particle volume = $(\text{Particle mass of solids}) / (\rho_{TDS})$ [Eq. 3]

$D_p = D_d [(TDS)(\rho_w/\rho_{TDS})]^{1/3}$ [Eq. 4]

where:

D_d = diameter of drift droplet (μm)

ρ_w = density of water = 1E-6 μg/μm³

ρ_{TDS} = density of solid particles (assume NaCl)

Size Distribution for Cooling Tower Particulate Emissions					
EPRI Droplet Diameter ⁴ (μm)	Droplet Volume ⁵ (μm ³)	Particle Mass (Solids) ⁶ (μg)	Solid Particle Volume ⁷ (μm ³)	Solid Particle Diameter ⁸ (μm)	EPRI % Mass Smaller ⁴
10	524	1.05.E-06	0.48	0.97	0.00
20	4189	8.38.E-06	3.81	1.94	0.20
30	14137	2.83.E-05	12.9	2.91	0.23
40	33510	6.70.E-05	30.5	3.87	0.51
50	65450	1.31.E-04	59	4.84	1.82
60	113097	2.26.E-04	103	5.81	5.70
70	179594	3.59.E-04	163	6.78	21.35
90	381704	7.63.E-04	347	8.7	49.81
110	696910	1.39.E-03	634	10.7	70.51
130	1150347	2.30.E-03	1,046	12.6	82.02
150	1767146	3.53.E-03	1,606	14.5	88.01
180	3053628	6.11.E-03	2,776	17.4	91.03
210	4849048	9.70.E-03	4,408	20.3	92.47
240	7238229	1.45.E-02	6,580	23.2	94.09
270	10305995	2.06.E-02	9,369	26.2	94.69
300	14137167	2.83.E-02	12,852	29.1	96.29
350	22449298	4.49.E-02	20,408	33.9	97.01
400	33510322	6.70.E-02	30,464	38.7	98.34
450	47712938	9.54.E-02	43,375	43.6	99.07
500	65449847	1.31.E-01	59,500	48.4	99.07
600	113097336	2.26.E-01	102,816	58.1	100.00

- ⁴ Based on particle size distribution test data in Reisman, J. and Frisbie, G., "Calculating Realistic PM10 Emissions from Cooling Towers".
- ⁵ Calculated using Equation 1.
- ⁶ Calculated using Equation 2.
- ⁷ Calculated using Equation 3.
- ⁸ Calculated using Equation 4.

PM₁₀ and PM_{2.5} Fractions Interpolated from Size Distribution

PM _{2.5} Fraction of Total PM (%)	PM ₁₀ Fraction of Total PM (%)
0.11	74.0

Cooling Towers - IA under 7007.1300, subp. 4

Particulate Emission Rates

PM Emission Rate (lb/hr) = Water Circulation Rate (lb/hr) x Drift x TDS / 1,000,000
PM₁₀ Emission Rate (lb/hr) = PM Emission Rate x PM₁₀ Fraction
PM_{2.5} Emission Rate (lb/hr) = PM Emission Rate x PM_{2.5} Fraction
Annual Emission Rates (tons/yr) = Short-term Emission Rates (lbs/hr) x 8,760 hours/year / 2,000 lbs per ton

Unit	PM		PM ₁₀		PM _{2.5}	
	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)
Cooling Tower (each)	0.01	0.04	0.007	0.03	0.00001	0.00004
Cooling Tower (5 total)	0.05	0.20	0.03	0.15	0.00005	0.0002

Weed Burners - IA under 7070.1300 subp. 3(F) for each individual unit

<u>Location</u>	<u>Qty</u>	<u>Size (MMBtu/hr)</u>	<u>Total MMBtu/hr</u>
Concentrator	14	0.5	7
Crusher	1	1	1
	8	0.5	4

Assumptions - NG (1.0 MMBtu/hr)

MMBtu/MMcf	1,020	
MMBtu/yr	4,380	<i>*Conservatively assumes the weed burner operates for 1/2 year</i>
# of burners	1	
Heater MMBtu/hr	1 MMBtu/hr	
Total MMBtu/hr	1	

						<i>MPCA Subpart 3(F) thresholds per burner</i>	
	lb/MMcf NG	lb/MMBtu	tpy	lb/yr	lb/yr	tpy	
NOx	100	0.10	0.21	429.4	2000		
PM	7.6	0.01	0.02	32.6	2000		
PM10	7.6	0.01	0.02	32.6	2000		
PM2.5	7.6	0.01	0.02	32.6	2000		
SO2	0.6	0.00	0.00	2.6	2000		
VOC	5.5	0.01	0.01	23.6	2000		
CO	84	0.08	0.18	360.7	4000		
CO2e	120,000	117.65	257.6				1000

Emission Factors from AP-42, Section 1.4 for Natural Gas Combustion

Assumptions - Propane (1.0 MMBtu/hr)

MMBtu/MMcf	1,020	
MMBtu/yr	4,380	<i>*Conservatively assumes the weed burner operates for 1/2 year</i>
# of heaters	1	
Heater MMBtu/hr	1 MMBtu/hr	
Total MMBtu/hr	1	

						<i>thresholds per burner</i>	
	lb/10 ³ gal Propane	lb/MMBtu	tpy	lb/yr	lb/yr	tpy	
NOx	13	0.14	0.31	622.3	2000		
PM	0.7	0.01	0.02	33.5	2000		
PM10	0.7	0.01	0.02	33.5	2000		
PM2.5	0.7	0.01	0.02	33.5	2000		
SO2	0.1	0.00	0.00	4.8	2000		
VOC	1	0.01	0.02	47.9	2000		
CO	7.5	0.08	0.18	359.0	4000		
CO2e	12,500	136.61	299.2				1000

Emission Factors from AP-42, Section 1.5 for Propane Combustion

Per AP-42, use heat contents of 91.5 x 10⁶ Btu per 10³ gallon for propane

Space Heaters - IAs individually under 7007.1300, subp. 3(F)

Location	Qty	Size (MMBtu/hr)	MMBtu/hr
Central Shops	10	1.0	10.0
Fines Crusher	6	1.0	6.0
	1	0.4	0.4
	11	1.0	11.0
	2	0.5	1.0
Concentrator	13	1.0	13.0
CT Pockets	6	1.0	6.0
Agglom 2	1	2.0	2.0
	37	1.0	37.0
	26	0.6	15.6
Agglom 3	33	1.0	33.0
	24	0.6	14.4

Total 170 149.4

Assumptions - NG (1 MMBtu/hr worst case heater)

MMBtu/MMcf	1,020	
MMBtu/yr	8,760	<i>*Conservatively assumes the space heater operates for 1/2 year</i>
# of heaters	1	
Heater MMBtu/hr	1 MMBtu/hr	
Total MMBtu/hr	1	

MPCA Subpart 3(F)
thresholds per heater

	lb/MMcf	lb/MMBtu	tpy	lb/yr	lb/yr	tpy
NOx	100	0.10	0.43	858.8	2000	
PM	7.6	0.01	0.03	65.3	2000	
PM10	7.6	0.01	0.03	65.3	2000	
PM2.5	7.6	0.01	0.03	65.3	2000	
SO2	0.6	0.00	0.00	5.2	2000	
VOC	5.5	0.01	0.02	47.2	2000	
CO	84	0.08	0.36	721.4	4000	
CO2e	120,000	117.65	515.3			1000

Emission Factors from AP-42, Section 1.4 for Natural Gas Combustion

Assumptions - Propane (1 Mmbtu/hr worst case heater)

MMBtu/MMcf	1,020	
MMBtu/yr	8,760	<i>*Conservatively assumes the space heater operates for 1/2 year</i>
# of heaters	1	
Heater MMBtu/hr	1 MMBtu/hr	
Total MMBtu/hr	1	

thresholds per heater

	lb/10 ³ gal	lb/MMBtu	tpy	lb/yr	lb/yr	tpy
NOx	13	0.14	0.62	1,244.6	2000	
PM	0.7	0.01	0.03	67.0	2000	
PM10	0.7	0.01	0.03	67.0	2000	
PM2.5	0.7	0.01	0.03	67.0	2000	
SO2	0.1	0.00	0.00	9.6	2000	
VOC	1	0.01	0.05	95.7	2000	
CO	7.5	0.08	0.36	718.0	4000	
CO2e	12,500	136.61	598.36			1000

Emission Factors from AP-42, Section 1.5 for Propane Combustion

Per AP-42, use heat contents of 91.5 x 10⁶ Btu per 10³ gallon for propane

U. S. Steel - Minntac - Tank VOC Calculation Output - IAs under Minn. R. 7007.1300, subp. 4

Vertical Diesel Tanks

Calculation from p-sbap5-42v

	ton/yr	lb/hr
VOC actual emissions	0.03	0.01
VOC potential emissions	0.04	0.01

Horizontal Diesel Tanks

Calculation from p-sbap5-42h

VOC actual emissions	0.07	0.02
VOC potential emissions	0.09	0.02

Horizontal Gasoline Tanks

Calculation from p-sbap5-42h

VOC actual emissions	0.77	0.18
VOC potential emissions	0.97	0.22

Total

VOC actual emissions		0.20
VOC potential emissions		0.25

VOC emissions from horizontal tank #1

Enter tank specific information in all blue cells.

Tank information

Tank identification	Mine Office Gasoline Tank
Description	
Location (city)	

Property	Value	Units	Description	About the value
Fuel type	Gasoline	select one	Type of fuel stored in the tank.	Choose "Gasoline" or "Diesel" from the drop-down box.
Storage tank position	Above	select one	Fixed roof structure.	Choose "Above" or "Under" from the drop-down box.
Actual throughput	350,000	gal/yr	Gallons stored in his tank over the period of 12 consecutive months.	
Actual hours operated	8760	hours/year	Number of hours the tank is being used.	
Potential throughput	455,000	gal/yr	Calculated based on actual tank throughput divided by the hours operated and multiplied by 8760 hours/day.	An additional 30% is added to the total to allow for variability and account for maximum capacity of the tank throughput.
VOC actual emissions	0.77	ton/yr	Amount of VOC actually released over the 12-month period.	Emissions are calculated based on the data entered into the blue cells on this tab.
VOC potential emissions	0.97	ton/yr	Amount of VOCs potentially released over a 12-month period.	Emissions are calculated based on the data entered into the blue cells on this tab.

Physical properties of the tank

Property	Value	Units	Description	About the value
Shell length	H _S	feet	This is actual length of the tank.	Use the outside height of the tank.
Shell diameter	D	feet	This is the actual width of the cylindrical shell.	Use the outside diameter of the tank.
Shell effective height	H _E	feet	Calculated effective height of the tank.	
Shell effective diameter	D _E	feet	Calculated effective diameter of the cylindrical shell.	
Shell radius	R _S	feet	Calculated radius	The shell diameter divided by 2.
Working volume	0.0	gallons	Calculated volume	Area = $\pi (D_E/2)^2 \times \text{shell effective height}$ (S _E). Conversion factor: 7.48 gallon/ft ³ .
Turnovers per year (actual)	N	dimensionless	Calculated number the tank is emptied and refilled, annually.	Actual throughput and working volume . Value = "0" if liquid is stored for an entire year.
Turnovers per year (potential)	N	dimensionless	Calculated number the tank could be emptied and refilled, annually.	Potential throughput and working volume . Value = "0" if liquid is stored for an entire year.
Shell color/shade	White/NA	select one	Tank shell color and shade are used to identify paint solar absorptance .	Default value is "White/NA". Go to Table 7.1-6.
Shell condition	Average	select one	Tank condition is used to identify paint solar absorptance . Only aboveground.	Default value is "Average" Go to Table 7.1-6.
Paint solar absorptance	α	dimensionless	Insert value from table 7.1-6 . Paint effectiveness in absorbing radiant energy.	Default value for "White/NA", "Average" condition tank is: 0.25. Go to Table 7.1-6.
Vacuum setting	P _{BV}	psig	Vacuum setting is a value set for the tank at the facility.	Must be between 0 and -1 psig. Default value is -0.03 psig.
Pressure setting	P _{BP}	psig	Breather vent pressure is a reading from the tank monitoring system.	Must be between 0 and 1 psig. Default value is 0.03 psig.

Weather data

Property	Value	Units	Description	About the value
Nearest major city	Minneapolis - St. Paul	Select one	Nearest major city to the tank location.	Go to Table 7.1-7.
Average annual maximum temperature	T _{AX}	°F	Average over a calendar year.	Go to Table 7.1-7.
Average annual minimum temperature	T _{AN}	°F	Average over a calendar year.	Go to Table 7.1-7.
Atmospheric pressure	P _A	psia	Average for the location.	Barometric pressure of 29.9 inches of mercury is approximately 14.7 psia.
Solar insolation	I	Btu/(ft ² ·day)	Total for a horizontal surface.	Go to Table 7.1-7.

Calculation of VOC Emission = Total Losses (L_T)

Variable	Calculated value	Notes (equations are from AP-42, Chapter 7)
Total losses (VOC actual emissions)	L_T 1542.50	lb/yr Equation 1-1
Total losses (VOC potential emissions)	L_T 1944.45	lb/yr Equation 1-1
Standing storage losses	L _S 0.00	lb/yr Equation 1-2
Working losses (actual)	L _W 1542.50	lb/yr Equation 1-35
Working losses (potential)	L _W 1944.45	lb/yr Equation 1-35
Annual net throughput (actual)	Q 8333.33	bbl/yr Based on actual throughput entered by user (gal/year) / 42 bbl/gal
Annual net throughput (potential)	Q 10833.33	bbl/yr Based on calculated potential throughput (gal/year) / 42 bbl/gal
Working loss turnover factor (actual)	K _N 1.00	dimensionless Saturation; turnovers >36 = (180 + N) / 6N; turnovers at 36 or lower = 1
Working loss turnover factor (potential)	K _N 1.00	dimensionless Saturation; turnovers >36 = (180 + N) / 6N; turnovers at 36 or lower = 1
Stock vapor density	W _V 0.03	lb/ft ³ Equation 1-22
Vapor Molecular Weight at 60 °F	M _V 68	lb/lb-mole Table 7.1-2
Vapor pressure	P _{VA} 2.639527042	psia Equation 1-25, P _{VA} based on T _{LA}
Vapor space volume	V _V 0.00	ft ³ Equation 1-3
Vapor space tank outage	H _{VO} 0.00	feet Equation 1-16, note for H _{VO} horizontal
Vapor space expansion factor	K _E 0.079	dimensionless Equation 1-5
Vented vapor saturation factor	K _S 1.00	dimensionless Equation 1-21
Working loss product factor	K _P 1	dimensionless Assume value of 1 for gasoline or diesel.
Ideal gas constant	R 10.731	psia*ft ³ /lb-mole*°R Constant, Equation 1-22
Average vapor temperature	T _V 507.30	°R Equation 1-33
Daily average liquid surface temperature	T _{LA} 506.39	°R Equation 1-28
Daily vapor temperature range	ΔT _V 19.15	°R Equation 1-7
Daily ambient temperature range	ΔT _A 19.00	°R Equation 1-11
Daily maximum ambient temperature	T _{AX} 513.90	°R Table 7.1-7. Conversion factor: Rankine = Fahrenheit + 459.7
Daily minimum ambient temperature	T _{AN} 494.90	°R Table 7.1-7. Conversion factor: Rankine = Fahrenheit + 459.7
Daily average ambient temperature	T _{AA} 504.40	°R Equation 1-30
Liquid bulk temperature	T _B 505.28	°R Equation 1-31
Daily vapor pressure range	ΔP _V 0.54	psia Equation 1-9
Breather vent pressure setting range	ΔP _B 0.06	psi Equation 1-10
Vapor pressure equation constant	A 11.833	dimensionless Table 7.1-2
Vapor pressure equation constant	B 5500.6	°R Table 7.1-2
Vapor pressure at T _{LX}	P _{VX} 2.9222	psia Equation 1-9, note 5
Vapor pressure at T _{LN}	P _{VN} 2.3796	psia Equation 1-9, note 5
Maximum T _{LA}	T _{LX} 511.18	°R Equation 1-9, note to Figure 7.1-17
Minimum T _{LA}	T _{LN} 501.60	°R Equation 1-9, note to Figure 7.1-17

VOC emissions from horizontal tank #1

Enter tank specific information in all blue cells.

Tank information

Tank identification	Diesel Fuel Tanks
Description	
Location (city)	

Property		Value	Units	Description	About the value
Fuel type		Diesel	select one	Type of fuel stored in the tank.	Choose "Gasoline" or "Diesel" from the drop-down box.
Storage tank position		Above	select one	Fixed roof structure.	Choose "Above" or "Under" from the drop-down box.
Actual throughput		11,200,000	gal/yr	Gallons stored in his tank over the period of 12 consecutive months.	
Actual hours operated		8760	hours/year	Number of hours the tank is being used.	
Potential throughput		14,560,000	gal/yr	Calculated based on actual tank throughput divided by the hours operated and multiplied by 8760 hours/day.	An additional 30% is added to the total to allow for variability and account for maximum capacity of the tank throughput.
VOC actual emissions		0.07	ton/yr	Amount of VOC actually released over the 12-month period.	Emissions are calculated based on the data entered into the blue cells on this tab.
VOC potential emissions		0.09	ton/yr	Amount of VOCs potentially released over a 12-month period.	Emissions are calculated based on the data entered into the blue cells on this tab.

Physical properties of the tank

Property		Value	Units	Description	About the value
Shell length	H _S	0	feet	This is actual length of the tank.	Use the outside height of the tank.
Shell diameter	D	0	feet	This is the actual width of the cylindrical shell.	Use the outside diameter of the tank.
Shell effective height	H _E	0.00	feet	Calculated effective height of the tank.	
Shell effective diameter	D _E	0.00	feet	Calculated effective diameter of the cylindrical shell.	
Shell radius	R _S	0	feet	Calculated radius	The shell diameter divided by 2.
Working volume		0.0	gallons	Calculated volume	Area = $\pi (D_E/2)^2 \times \text{shell effective height}$ (S _E). Conversion factor: 7.48 gallon/ft ³ .
Turnovers per year (actual)	N	0.0	dimensionless	Calculated number the tank is emptied and refilled, annually.	Actual throughput and working volume . Value = "0" if liquid is stored for an entire year.
Turnovers per year (potential)	N	0.0	dimensionless	Calculated number the tank could be emptied and refilled, annually.	Potential throughput and working volume . Value = "0" if liquid is stored for an entire year.
Shell color/shade		White/NA	select one	Tank shell color and shade are used to identify paint solar absorptance .	Default value is "White/NA". Go to Table 7.1-6.
Shell condition		Average	select one	Tank condition is used to identify paint solar absorptance . Only aboveground.	Default value is "Average" Go to Table 7.1-6.
Paint solar absorptance	α	0.25	dimensionless	Insert value from table 7.1-6 . Paint effectiveness in absorbing radiant energy.	Default value for "White/NA", "Average" condition tank is: 0.25. Go to Table 7.1-6.
Vacuum setting	P _{BV}	-0.03	psig	Vacuum setting is a value set for the tank at the facility.	Must be between 0 and -1 psig. Default value is -0.03 psig.
Pressure setting	P _{BP}	0.03	psig	Breather vent pressure is a reading from the tank monitoring system.	Must be between 0 and 1 psig. Default value is 0.03 psig.

Weather data

Property		Value	Units	Description	About the value
Nearest major city		Minneapolis - St. Paul	Select one	Nearest major city to the tank location.	Go to Table 7.1-7.
Average annual maximum temperature	T _{AX}	54.2	°F	Average over a calendar year.	Go to Table 7.1-7.
Average annual minimum temperature	T _{AN}	35.2	°F	Average over a calendar year.	Go to Table 7.1-7.
Atmospheric pressure	P _A	14.3	psia	Average for the location.	Barometric pressure of 29.9 inches of mercury is approximately 14.7 psia.
Solar insolation	I	1170.0	Btu/(ft ² -day)	Total for a horizontal surface.	Go to Table 7.1-7.

Calculation of VOC Emission = Total Losses (L_T)

Variable	Calculated value	Notes (equations are from AP-42, Chapter 7)
Total losses (VOC actual emissions)	L_T 147.83	lb/yr Equation 1-1
Total losses (VOC potential emissions)	L_T 186.36	lb/yr Equation 1-1
Standing storage losses	L _S 0.00	lb/yr Equation 1-2
Working losses (actual)	L _W 147.83	lb/yr Equation 1-35
Working losses (potential)	L _W 186.36	lb/yr Equation 1-35
Annual net throughput (actual)	Q 266666.67	bbl/yr Based on actual throughput entered by user (gal/year) / 42 bbl/gal
Annual net throughput (potential)	Q 346666.67	bbl/yr Based on calculated potential throughput (gal/year) / 42 bbl/gal
Working loss turnover factor (actual)	K _N 1.00	dimensionless Saturation; turnovers >36 = (180 + N) / 6N; turnovers at 36 or lower = 1
Working loss turnover factor (potential)	K _N 1.00	dimensionless Saturation; turnovers >36 = (180 + N) / 6N; turnovers at 36 or lower = 1
Stock vapor density	W _V 0.00	lb/ft ³ Equation 1-22
Vapor Molecular Weight at 60 °F	M _V 130	lb/lb-mole Table 7.1-2
Vapor pressure	P _{VA} 0.004135096	psia Equation 1-25, P _{VA} based on T _{LA}
Vapor space volume	V _V 0.00	ft ³ Equation 1-3
Vapor space tank outage	H _{VO} 0.00	feet Equation 1-16, note for H _{VO} horizontal
Vapor space expansion factor	K _E 0.034	dimensionless Equation 1-5
Vented vapor saturation factor	K _S 1.00	dimensionless Equation 1-21
Working loss product factor	K _P 1	dimensionless Assume value of 1 for gasoline or diesel.
Ideal gas constant	R 10.731	psia*ft ³ /lb-mole*°R Constant, Equation 1-22
Average vapor temperature	T _V 507.30	°R Equation 1-33
Daily average liquid surface temperature	T _{LA} 506.39	°R Equation 1-28
Daily vapor temperature range	ΔT _V 19.15	°R Equation 1-7
Daily ambient temperature range	ΔT _A 19.00	°R Equation 1-11
Daily maximum ambient temperature	T _{AX} 513.90	°R Table 7.1-7. Conversion factor: Rankine = Fahrenheit + 459.7
Daily minimum ambient temperature	T _{AN} 494.90	°R Table 7.1-7. Conversion factor: Rankine = Fahrenheit + 459.7
Daily average ambient temperature	T _{AA} 504.40	°R Equation 1-30
Liquid bulk temperature	T _B 505.28	°R Equation 1-31
Daily vapor pressure range	ΔP _V 0.00	psia Equation 1-9
Breather vent pressure setting range	ΔP _B 0.06	psi Equation 1-10
Vapor pressure equation constant	A 12.101	dimensionless Table 7.1-2
Vapor pressure equation constant	B 8907	°R Table 7.1-2
Vapor pressure at T _{LX}	P _{VX} 0.0049	psia Equation 1-9, note 5
Vapor pressure at T _{LN}	P _{VN} 0.0035	psia Equation 1-9, note 5
Maximum T _{LA}	T _{LX} 511.18	°R Equation 1-9, note to Figure 7.1-17
Minimum T _{LA}	T _{LN} 501.60	°R Equation 1-9, note to Figure 7.1-17

VOC emissions from vertical, fixed roof tank #1

Enter tank specific information in all blue cells.

Tank information

Tank identification	West Pit Fueling
Description	
Location (city)	

Property	Value	Units	Description	About the value
Fuel type	Diesel	select one	Type of fuel stored in the tank.	Choose "Gasoline" or "Diesel" from the drop-down box.
Type of roof	Cone	select one	Fixed roof structure.	Choose "Dome" or "Cone" from the drop-down box.
Actual throughput	4,800,000	gal/yr	Gallons stored in his tank over the period of 12 consecutive months.	
Actual hours operated	8760	hours/year	Number of hours the tank is being used.	
Potential throughput	6,240,000	gal/yr	Calculated based on actual tank throughput divided by the hours operated and multiplied by 8760 hours/day.	An additional 30% is added to the total to allow for variability and account for maximum capacity of the tank throughput.
VOC actual emissions	0.03	ton/yr	Amount of VOC actually released over the 12-month period.	Emissions are calculated based on the data entered into the blue cells on this tab.
VOC potential emissions	0.04	ton/yr	Amount of VOCs potentially released over a 12-month period.	Emissions are calculated based on the data entered into the blue cells on this tab.

Physical properties of the tank

Property		Value	Units	Description	About the value	
	Shell height	H _S	0	feet	This is actual length of the tank.	Use the outside height of the tank.
	Shell diameter	D	0	feet	This is the width of the cylindrical shell.	Use the outside diameter of the tank.
	Shell radius	R _S	0	feet	Calculated radius	The shell diameter divided by 2.
	Maximum liquid height	H _{LX}	0	feet	Maximum height of the liquid within the tank shell.	Should be equal or less than shell height .
	Average liquid height	H _L	0	feet	Average height of the liquid within the tank shell.	Should be less than or equal to maximum liquid height .
	Working volume		0.0	gallons	Calculated volume	Area (πr ²) multiplied by maximum liquid height . Conversion factor: 7.48 gallon/ft ³ .
	Turnovers per year (actual)	N	0.0	dimensionless	Calculated number the tank is emptied and refilled, annually.	Actual throughput and working volume . Value = "0" if liquid is stored for an entire year.
	Turnovers per year (potential)	N	0.0	dimensionless	Calculated number the tank could be emptied and refilled, annually.	Potential throughput and working volume . Value = "0" if liquid is stored for an entire year.
	Shell color/shade		White/NA	select one	Tank shell color and shade are used to identify paint solar absorptance .	Go to Table 7.1-6. Default value is "White/NA".
	Shell condition		Average	select one	Tank condition is used to identify paint solar absorptance .	Go to Table 7.1-6. Default value is "Average".
	Paint solar absorptance	α	0.25	dimensionless	Insert value from table 7.1-6 . Paint effectiveness in absorbing radiant energy.	Go to Table 7.1-6 . Default value for "White/NA" and "Average" condition tank is: 0.25.
	Roof height	H _R	0.00	feet	Calculated roof height.	Equation 1-18 for cone roof; Equation 1-20 for dome roof
	Dome roof radius	R _R	--	feet	Calculated radius. Only applies to a "Dome" roof.	Calculated as 0.8 times tank diameter .
	Cone roof slope	S _R	0.0625	ft/ft	If unknown = 0.0625. If known, insert value . Only applies to a "Cone" roof.	Calculated using Pythagorean theorem.
	Vacuum setting	P _{BV}	-0.03	psig	Vacuum setting is a value set for the tank at the facility.	Must be between 0 and -1 psig. Default value is -0.03 psig.
	Pressure setting	P _{BP}	0.03	psig	Breather vent pressure is a reading from the tank monitoring system.	Must be between 0 and 1 psig. Default value is 0.03 psig.

Weather data

Property		Value	Units	Description	About the value
Nearest major city		Minneapolis - St. Paul	Select one	Nearest major city to the tank location.	Go to Table 7.1-7.
Average annual maximum temperature	T _{AX}	54.2	°F	Average over a calendar year.	Go to Table 7.1-7.
Average annual minimum temperature	T _{AN}	35.2	°F	Average over a calendar year.	Go to Table 7.1-7.
Atmospheric pressure	P _A	14.26	psia	Average for the location.	Barometric pressure of 29.9 inches of mercury is approximately 14.7 psia.
Solar insolation	I	1170.00	Btu/(ft ² ·day)	Total for a horizontal surface.	Go to Table 7.1-7.

Calculation of VOC Emission = Total Losses (L_T)

Variable	Calculated value	Notes (equations are from AP-42, Chapter 7)
Total losses (VOC actual emissions)	L _T	63.36 lb/yr
Total losses (VOC potential emissions)	L _T	82.36 lb/yr
Standing storage losses	L _S	0.00 lb/yr
Working losses (actual)	L _W	63.36 lb/yr
Working losses (potential)	L _W	82.36 lb/yr
Annual net throughput (actual)	Q	114285.71 bbl/yr
Annual net throughput (potential)	Q	148571.43 bbl/yr
Working loss turnover factor (actual)	K _N	1.00 dimensionless
Working loss turnover factor (potential)	K _N	1.00 dimensionless
Stock vapor density	W _V	0.00 lb/ft ³

Vapor Molecular Weight at 60 °F	M _V	130	lb/lb-mole
Vapor pressure at 60 °F	P _{VA}	0.004135096	psia
Vapor space volume	V _V	0.00	ft ³
Vapor space roof outage	H _{RO}	0.00	feet
Vapor space tank outage	H _{VO}	0.00	feet
Vapor space expansion factor	K _E	0.03	
Vented vapor saturation factor	K _S	1.00	dimensionless
Working loss product factor	K _P	1	dimensionless
Ideal gas constant	R	10.731	psia*ft ³ /lb-mole**R
Average vapor temperature	T _V	507.30	°R
Daily average liquid surface temperature	T _{LA}	506.39	°R
Daily vapor temperature range	ΔT _V	19.15	°R
Daily ambient temperature range	ΔT _A	19.00	°R
Daily maximum ambient temperature	T _{AX}	513.90	°R
Daily minimum ambient temperature	T _{AN}	494.90	°R
Daily average ambient temperature	T _{AA}	504.40	°R
Liquid bulk temperature	T _B	505.28	°R
Daily vapor pressure range	ΔP _V	0.00	psia
Breather vent pressure setting range	ΔP _B	0.06	psi
Vapor pressure equation constant	A	12.101	dimensionless
Vapor pressure equation constant	B	8907	°R
Vapor pressure at T _{LX}	P _{VX}	0.00	psia
Vapor pressure at T _{LN}	P _{VN}	0.00	psia
Maximum T _{LA}	T _{LX}	511.18	°R
Minimum T _{LA}	T _{LN}	501.60	°R

Table 7.1-2

Equation 1-25, P_{VA} based on T_{LA}

Equation 1-3

Equation 1-17 Cone; Equation 1-19 Dome

Equation 1-16, vertical

Equation 1-5

Equation 1-21

Assume value of 1 for gasoline or diesel.

Constant, Equation 1-22

Equation 1-33

Equation 1-28

Equation 1-7

Equation 1-11

Table 7-1-7. Conversion factor: Rankine = Fahrenheit + 459.7

Table 7-1-7. Conversion factor: Rankine = Fahrenheit + 459.7

Equation 1-30

Equation 1-31

Equation 1-9

Equation 1-10

Table 7.1-2

Table 7.1-2

Equation 1-9, note 5

Equation 1-9, note 5

Equation 1-9, note to Figure 7.1-17

Equation 1-9, note to Figure 7.1-17

Minntac Historically Reported Emission Factors for Emission Units.

PM (lb/ton) ¹	PM10 (lb/ton) ¹	PM2.5 (lb/lb PM10) ²
0.001	0.0005	0.35294

¹ Emission factor for PM and PM10 from historical Minntac AEIs and metallic and nonmetallic general contractor permits.

² Emission factor for PM2.5 taken from the MPCA AEI Factor (S/L/T Speciation Profile, Data from EPA PM Calculator)

Step 1 and 2 Belt Tonnage (Pellets) and Uncontrolled Emissions from Air Emission Inventories - Baseline Calculation.

Year	TPY	PM (tpy)	PM10 (tpy)	PM2.5 (tpy)
2012	8,719,731	4.36	2.18	0.77
2013	8,838,489	4.42	2.21	0.78
2014	9,094,583	4.55	2.27	0.80
2015	6,385,080	3.19	1.60	0.56
2016	8,426,609	4.21	2.11	0.74
2017	8,602,198	4.30	2.15	0.76
2018	8,697,050	4.35	2.17	0.77
2019	7,977,321	3.99	1.99	0.70
2020	8,424,031	4.21	2.11	0.74
2021	8,989,646	4.49	2.25	0.79
Baseline		4.48	2.24	0.79

Baseline Uncontrolled Emissions* from Six Existing Emission Units that are being Replaced. IND20220002

Unit	PM (tpy)	PM10 (tpy)	PM2.5 (tpy)	PM (lb/hr)	PM10 (lb/hr)	PM2.5 (lb/hr)
EU289 = FS031	4.48	2.24	0.79	1.02	0.51	0.18
EU290 = FS032	4.48	2.24	0.79	1.02	0.51	0.18
EU291 = FS033	4.48	2.24	0.79	1.02	0.51	0.18
EU292 = FS034	4.48	2.24	0.79	1.02	0.51	0.18
EU293 = FS035	4.48	2.24	0.79	1.02	0.51	0.18
EU294 = FS036	4.48	2.24	0.79	1.02	0.51	0.18
TOTAL	26.90	13.45	4.75	6.14	3.07	1.08

*Note that emissions from each emission unit (stack/vent) are the same due to the same pellet throughput across each emission unit.

Potential Uncontrolled Emissions from New Emission Units IND20220002

Source	Max throughput (tpy)	Potential Emissions (tpy)			Potential Emissions (lb/hr)		
		PM (tpy)	PM10 (tpy)	PM2.5 (tpy)	PM (lb/hr)	PM10 (lb/hr)	PM2.5 (lb/hr)
EQUI 697	10,950,000	5.48	2.74	0.97	1.25	0.63	0.22
EQUI 698	10,950,000	5.48	2.74	0.97	1.25	0.63	0.22
EQUI 699	10,950,000	5.48	2.74	0.97	1.25	0.63	0.22
EQUI 700	10,950,000	5.48	2.74	0.97	1.25	0.63	0.22
EQUI 701	10,950,000	5.48	2.74	0.97	1.25	0.63	0.22
EQUI 702	10,950,000	5.48	2.74	0.97	1.25	0.63	0.22
TOTAL		32.85	16.43	5.80	7.50	3.75	1.32

The projected actual emissions of the new emission units will be similar to or lower than the highest 24-month average tons per year. There is no expected change in pellet throughput across Lines 3-5.

Projected Actual Uncontrolled Emissions for the new Emission Units based on Historical Pellet Throughput.

Source	Throughput (tpy)	Projected Actual Emissions (tpy)			Projected Actual Emissions (lb/hr)		
		PM (tpy)	PM10 (tpy)	PM2.5 (tpy)	PM (lb/hr)	PM10 (lb/hr)	PM2.5 (lb/hr)
EQUI 697	8,966,536	4.48	2.24	0.79	1.02	0.51	0.18
EQUI 698	8,966,536	4.48	2.24	0.79	1.02	0.51	0.18
EQUI 699	8,966,536	4.48	2.24	0.79	1.02	0.51	0.18
EQUI 700	8,966,536	4.48	2.24	0.79	1.02	0.51	0.18
EQUI 701	8,966,536	4.48	2.24	0.79	1.02	0.51	0.18
EQUI 702	8,966,536	4.48	2.24	0.79	1.02	0.51	0.18
TOTAL		26.90	13.45	4.75	6.14	3.07	1.08

Note that the values above are also applicable as the Title I emissions analysis for the project in notification IND20220001, which was for the replacement of the original conveyors that catastrophically failed and were replaced with temporary conveyors. The project in IND2022002 is for the replacement of temporary conveyors with permanent conveyors. The temporary conveyors were in use approximately 6 months from Feb 2022 - Aug 2022.

Uncontrolled (tpy)

		PM	PM10	PM2.5
Ore Conveyor HPGR 1	EQUI 678	0.38	0.12	0.04
Return Screen Conveyor HPGR2	EQUI 679	0.48	0.16	0.04
Diverter Conveyor HPGR3	EQUI 680	0.85	0.28	0.08
Grinder Conveyor (in) HPGR 4	EQUI 681	0.85	0.28	0.08
HPGR Grinding Operation	EQUI 682	7.33	3.30	0.61
Grinder Conveyor (out) HPGR 5	EQUI 683	0.85	0.28	0.08

IND20180001 Title I emissions summary

Pollutant	Emissions increase from the modification (tpy)	Limited emissions increase from the modification	Contemp. Increase or decrease	net increase	Significant thresholds	NSR review required?
PM	10.75			10.75	25	no
PM ₁₀	4.42			4.42	15	no
PM _{2.5}	0.93			0.93	10	no

Controlled PTE		
	EQUI 674	EQUI 675
PM	7.88	7.88
PM10	8.55	8.55
PM2.5	5.65	5.65

IND20170001 Title I emissions summary

Pollutant	Future Potential emissions	Baseline actual emissions	Excludable Emissions	Projected Limited emissions increase including excludables	Significant thresholds	NSR review required?
PM	15.77	6.01	0	9.75	25	no
PM ₁₀	17.10	6.01	0	11.09	15	no
PM _{2.5}	11.31	6.01	0	5.29	10	no

U. S. Steel - Minntac
Replacement of Tertiary Crushers
Emissions Based on Crusher Throughput

E.F. (lb/LT) - L25 uses its own stack test, L23 uses the flow weighted average of available tertiary total PM stack tests.

			0.0019	0.0047		
Month	Throughputs (LT/Mon)		Emissions (lb/month)		Annual Rolling Average (TPY)	
	L23	L25	L23	L25	L23	L25
Jan-06	142,543	186,036	275	881		
Feb-06	157,122	161,671	303	766		
Mar-06	157,470	173,647	303	822		
Apr-06	20	187,769	0	889		
May-06	0	170,965	0	810		
Jun-06	0	214,600	0	1,016		
Jul-06	141,166	165,674	272	785		
Aug-06	177,981	187,044	343	886		
Sep-06	177,180	178,629	341	846		
Oct-06	182,225	134,355	351	636		
Nov-06	168,761	157,423	325	745		
Dec-06	169,746	171,040	327	810		
Jan-07	195,334	189,470	376	897		
Feb-07	153,203	154,007	295	729		
Mar-07	156,144	169,271	301	802		
Apr-07	162,039	198,202	312	939		
May-07	208,199	196,206	401	929		
Jun-07	133,833	134,594	258	637		
Jul-07	164,318	166,741	316	790		
Aug-07	61,934	129,379	119	613		
Sep-07	0	98,188	0	465		
Oct-07	0	155,064	0	734		
Nov-07	0	196,089	0	929		
Dec-07	0	197,084	0	933	1.305	4.822
Jan-08	155,601	154,142	300	730	1.311	4.784
Feb-08	171,374	163,470	330	774	1.318	4.786
Mar-08	185,945	194,028	358	919	1.331	4.811
Apr-08	172,544	170,746	332	809	1.414	4.790
May-08	184,237	191,602	355	907	1.503	4.815
Jun-08	177,470	172,483	342	817	1.589	4.765
Jul-08	172,648	182,261	333	863	1.604	4.785
Aug-08	188,637	201,375	363	954	1.609	4.802
Sep-08	139,249	158,763	268	752	1.591	4.778
Oct-08	183,873	151,032	354	715	1.591	4.798

Nov-08	141,751	156,581	273	741	1.578	4.797
Dec-08	179,338	25,800	345	122	1.583	4.625
Jan-09	40,580	0	78	0	1.509	4.401
Feb-09	105,029	0	202	0	1.485	4.218
Mar-09	8,897	0	17	0	1.414	4.018
Apr-09	28	0	0	0	1.336	3.783
May-09	0	0	0	0	1.236	3.551
Jun-09	0	0	0	0	1.172	3.392
Jul-09	0	0	0	0	1.093	3.194
Aug-09	31,192	0	60	0	1.078	3.041
Sep-09	23,249	72,246	45	342	1.089	3.010
Oct-09	58,144	157,227	112	745	1.117	3.013
Nov-09	155,062	147,865	299	700	1.192	2.956
Dec-09	161,859	148,194	312	702	1.270	2.898
Jan-10	155,659	141,997	300	672	1.270	2.884
Feb-10	66,924	115,982	129	549	1.219	2.827
Mar-10	160,220	124,929	309	592	1.207	2.745
Apr-10	74,873	48,925	144	232	1.160	2.601
May-10	12,164	176,016	23	834	1.077	2.583
Jun-10	157,612	121,190	304	574	1.068	2.522
Jul-10	139,354	124,512	268	590	1.051	2.454
Aug-10	129,429	188,743	249	894	1.023	2.439
Sep-10	199,864	150,223	385	711	1.052	2.429
Oct-10	120,982	140,787	233	667	1.022	2.417
Nov-10	130,455	114,326	251	541	1.016	2.366
Dec-10	161,256	156,185	311	740	1.008	2.521
Jan-11	121,064	152,213	233	721	1.046	2.701
Feb-11	132,061	87,913	254	416	1.059	2.805
Mar-11	153,005	133,394	295	632	1.129	2.963
Apr-11	144,483	154,301	278	731	1.198	3.146
May-11	154,026	124,423	297	589	1.273	3.293
Jun-11	137,490	105,554	265	500	1.339	3.418
Jul-11	109,601	124,446	211	589	1.392	3.565
Aug-11	138,952	129,516	268	613	1.443	3.719
Sep-11	157,140	144,945	303	686	1.508	3.805
Oct-11	154,682	144,900	298	686	1.554	3.790
Nov-11	153,735	113,604	296	538	1.554	3.750
Dec-11	192,653	117,773	371	558	1.569	3.714
Jan-12	175,709	161,965	338	767	1.578	3.737
Feb-12	166,405	132,621	321	628	1.626	3.757
Mar-12	203,436	177,323	392	840	1.647	3.819
Apr-12	170,223	166,545	328	789	1.693	3.958
May-12	121,543	141,868	234	672	1.746	3.918
Jun-12	137,682	140,100	265	663	1.736	3.940
Jul-12	157,865	131,204	304	621	1.745	3.948
Aug-12	68,004	116,329	131	551	1.715	3.862
Sep-12	49,508	133,749	95	633	1.643	3.843

Oct-12	0	144,781	0	686	1.585	3.848
Nov-12	59,559	142,764	115	676	1.551	3.881
Dec-12	154,111	164,223	297	778	1.547	3.891
Jan-13	179,212	141,037	345	668	1.575	3.877
Feb-13	170,875	132,632	329	628	1.594	3.930
Mar-13	157,271	86,655	303	410	1.596	3.875
Apr-13	181,152	127,428	349	603	1.613	3.843
May-13	187,573	198,706	361	941	1.630	3.931
Jun-13	184,831	110,533	356	523	1.652	3.937
Jul-13	198,836	93,496	383	443	1.695	3.900
Aug-13	159,581	43,899	307	208	1.705	3.799
Sep-13	139,704	153,933	269	729	1.697	3.810
Oct-13	162,855	153,531	314	727	1.701	3.820
Nov-13	179,506	127,349	346	603	1.713	3.836
Dec-13	165,280	152,924	318	724	1.700	3.878
Jan-14	174,900	170,491	337	807	1.700	3.888
Feb-14	143,622	131,930	277	625	1.689	3.887
Mar-14	144,239	144,410	278	684	1.660	3.848
Apr-14	138,740	153,513	267	727	1.645	3.833
May-14	147,216	147,623	284	699	1.657	3.840
Jun-14	160,097	141,253	308	669	1.668	3.841
Jul-14	175,104	151,378	337	717	1.677	3.865
Aug-14	157,805	135,074	304	640	1.720	3.887
Sep-14	176,327	156,440	340	741	1.781	3.914
Oct-14	185,801	187,384	358	887	1.870	3.964
Nov-14	171,494	156,816	330	743	1.924	3.981
Dec-14	165,557	136,663	319	647	1.930	3.948
Jan-15	170,251	186,390	328	883	1.925	4.002
Feb-15	151,102	146,363	291	693	1.916	4.018
Mar-15	181,409	196,674	349	931	1.927	4.148
Apr-15	169,378	164,605	326	779	1.922	4.193
May-15	33,509	29,545	65	140	1.848	3.992
Jun-15	0	0	0	0	1.759	3.861
Jul-15	0	0	0	0	1.663	3.751
Aug-15	131,252	111,131	253	526	1.649	3.830
Sep-15	160,145	203,219	308	962	1.659	3.889
Oct-15	195,985	213,103	377	1,009	1.675	3.959
Nov-15	136,925	162,973	264	772	1.655	4.001
Dec-15	146,540	148,151	282	702	1.646	3.996
Jan-16	183,834	168,913	354	800	1.650	3.994
Feb-16	168,092	146,886	324	696	1.662	4.012
Mar-16	89,109	142,004	172	672	1.635	4.009
Apr-16	149,396	151,102	288	716	1.640	4.006
May-16	154,357	151,926	297	719	1.644	4.011
Jun-16	151,615	176,792	292	837	1.640	4.053
Jul-16	82,169	166,032	158	786	1.595	4.070
Aug-16	119,217	194,234	230	920	1.576	4.140

Sep-16	112,927	136,782	218	648	1.546	4.117
Oct-16	109,413	173,583	211	822	1.509	4.101
Nov-16	143,786	149,083	277	706	1.496	4.092
Dec-16	202,149	188,348	389	892	1.513	4.153
Jan-17	165,169	169,102	318	801	1.511	4.132
Feb-17	169,148	165,641	326	784	1.519	4.155
Mar-17	139,564	205,293	269	972	1.499	4.165
Apr-17	96,727	143,203	186	678	1.464	4.140
May-17	126,281	171,922	243	814	1.509	4.309
Jun-17	34,789	152,578	67	723	1.526	4.489

Table D-3
Emissions Increase Analysis, PAE
Replacement of Two Tertiary Crushers
U. S. Steel Corporation - Minntac Facility

Unit	Criteria Pollutant	Max 24-month TPY Average Emissions (PAE)	24-month Start Month- Year	24-month End Month- Year
L23	PM/PM10 /PM2.5	1.93	Jan-13	Dec-14

Max 2-yr
lookup 85 Defined
Month 85 Defined
Month 108

Table D-4
Emissions Increase Analysis, BAE
Replacement of Two Tertiary Crushers
U. S. Steel Corporation - Minntac Facility

Pick Month

115

Per 40 CFR 52.21 - baseline time
period needs to be the same for
given NSR pollutant

Unit	Criteria Pollutant	24-month TPY Average Emissions During Baseline Period (BAE)	24-month Start Month- Year	24-month End Month- Year
L23	PM/PM10 /PM2.5	1.53	Jul-15	Jun-17

Max 2-yr
lookup 115 Defined
Month 115 Defined
Month 138

Table D-5
Emissions Increase Analysis, PAE
Replacement of Two Tertiary Crushers
U. S. Steel Corporation - Minntac Facility

Unit	Criteria Pollutant	Max 24-month TPY Average Emissions (PAE)	24-month Start Month- Year	24-month End Month- Year
L25	PM/PM10 /PM2.5	4.49	Jul-15	Jun-17

Max 2-yr lookup	Defined Month	Defined Month
115	115	138

Table D-6
Emissions Increase Analysis, BAE
Replacement of Two Tertiary Crushers
U. S. Steel Corporation - Minntac Facility

Pick Month

115

Per 40 CFR 52.21 - baseline time
period needs to be the same for
given NSR pollutant

Unit	Criteria Pollutant	24-month TPY Average Emissions During Baseline Period (BAE)	24-month Start Month- Year	24-month End Month- Year
L25	PM/PM10 /PM2.5	4.49	Jul-15	Jun-17

Max 2-yr lookup	Defined Month	Defined Month
115	115	138

IND20160001 Title I emissions summary

	Unlimited PTE from mod (tpy)	Limited PTE from mod (tpy)	NSR Significant emissions increase (tpy)	NSR review required?
PM	158.31	7.88	25	no
PM10	135.47	8.55	15	no
PM2.5	48.40	5.65	10	no

IND20120001 Title I emissions summary

	Unlimited PTE from mod (tpy)	Limited PTE from mod (tpy)	NSR Significant emissions increase (tpy)	NSR review required?
PM	158.31	7.88	25	no
PM10	135.47	8.55	15	no
PM2.5	48.40	5.65	10	no

Attachment 2 – Subject item inventory and facility requirements

SI List

AI ID (Name): 2476 (US Steel Corp - MinnTac)
Activity: IND20070001

SI Category	SI Type	Subject Item ID	Delta Designation	Description	
Activity	Insignificant Air Emissions Activity	ACTV 2	Null	All IAs	
Agency Interest	Conventional Site	AI SI 2476	Null	Null	
Component Group	Air Component Group	COMG 37	Null	Regional Haze and Facility-wide NOx Limits	
		COMG 38	Null	Line 6 and 7 Combined Limits	
		COMG 39	Null	Taconite MACT Existing Ore Crushing and Handling	
		COMG 40	Null	Taconite MACT Existing Finished Pellet Handling	
		COMG 41	Null	Taconite MACT fugitive sources	
		COMG 42	Null	Taconite MACT Testing Group: Step I and II Coarse Crushers - Scrubbers	
		COMG 45	Null	Taconite MACT Testing Group: Step I and II Conveyors Group 2 - Scrubber	
		COMG 46	Null	Taconite MACT Testing Group: Step I and II Conveyors Group 2 - Cartridge Filters	
		COMG 47	Null	Taconite MACT Testing Group: Step I and II Conveyors Group 3 - Cartridge Filters	
		COMG 48	Null	Taconite MACT Testing Group: Secondary Crushers L1-L5 - Cartridge Filters	
		COMG 49	Null	Taconite MACT Testing Group: Secondary Crushers L6-L10 - Scrubbers	
		COMG 50	Null	Taconite MACT Testing Group: Secondary Crushers L6-L10 - Cartridge Filters	
		COMG 51	Null	Taconite MACT Testing Group: Tertiary Crushers L1-L6 - Cartridge Filters	
		COMG 52	Null	Taconite MACT Testing Group: Tertiary Crushers L7-L12 - Cartridge Filters	
		COMG 53	Null	Taconite MACT Testing Group: Tertiary Crushers L13-L16 - Cartridge Filters	
		COMG 54	Null	Taconite MACT Testing Group: Step I and II Conveyors Group 4 - Cartridge Filters	
		COMG 55	Null	Taconite MACT Testing Group: Step I and II Storage Bins - Scrubbers	
		COMG 56	Null	Taconite MACT Testing Group: Step III Pan feeders - Scrubbers	
		COMG 57	Null	Taconite MACT Testing Group: Step III Pan feeders - Cartridge Filters	
		COMG 58	Null	Taconite MACT Testing Group: Step III Secondary Crushers L11-15 - Scrubbers	
		COMG 59	Null	Taconite MACT Testing Group: Step III Secondary Crushers L11-15 - Cartridge Filters	
		COMG 60	Null	Taconite MACT Testing Group: Step III Secondary Crushers L18-23 - Scrubbers	
		COMG 61	Null	Taconite MACT Testing Group: Step III Secondary Crushers L18-22 - Cartridge Filters	
		COMG 62	Null	Taconite MACT Testing Group: Step III Secondary Crushers L23-28 - Scrubbers	
		COMG 63	Null	Taconite MACT Testing Group: Step III Secondary Crushers L24-28 - Fabric Filters	
		COMG 64	Null	Taconite MACT Testing Group: Step III Conveyors Group 1 - Scrubbers	
		COMG 65	Null	Taconite MACT Testing Group: Step III Conveyors - Cartridge Filters	
		COMG 66	Null	Taconite MACT Testing Group: Step III Storage Bins Group 1 - Fabric Filters	
		COMG 67	Null	Taconite MACT Testing Group: Step III Conveyors Group 2 - Fabric Filters	
		COMG 68	Null	Taconite MACT Testing Group: Step III Storage Bins Group 2 - Scrubbers	
		COMG 69	Null	Taconite MACT Testing Group: Step I/II Pellet Handling Conveyors - Scrubbers	
		COMG 70	Null	Taconite MACT Testing Group: Step I/II Grate Feeds - Scrubbers	
		COMG 71	Null	Taconite MACT Testing Group: Step I/II Cooler Discharge - Scrubbers	
		COMG 72	Null	Taconite MACT Testing Group: Step III Pellet Handling Conveyors - Scrubbers	
		COMG 73	Null	Line 3 CEMS	
		COMG 74	Null	Line 4 CEMS	
		COMG 75	Null	Line 5 CEMS	
		COMG 76	Null	Line 6 CEMS	
		COMG 77	Null	Line 7 CEMS	
		COMG 78	Null	Taconite MACT Testing Group: Step III Grate Feeds - Scrubbers	
		COMG 79	Null	Line 6 and 7 Mercury Emission Inventory Testing	
		COMG 80	Null	Line 4 and 5 Mercury Emission Inventory Testing	
Equipment	Blender	EQUI 31	EU273	L5 Bentonite Blending	
		EQUI 32	EU274	L5 Bentonite Blending	
		EQUI 33	EU275	L5 Bentonite Blending	
		EQUI 34	EU276	L5 Bentonite Blending	
		EQUI 35	EU277	L5 Bentonite Blending	
		EQUI 93	EU306	L6 Bentonite Blending	
		EQUI 94	EU307	L6 Bentonite Blending	
		EQUI 95	EU309	L6 Bentonite Blending	
		EQUI 101	EU325	L7 Bentonite Blending	
		EQUI 102	EU327	L7 Bentonite Blending	
		EQUI 103	EU328	L7 Bentonite Blending	
		EQUI 143	EU217	L3 Bentonite Blending	
		EQUI 144	EU220	L3 Bentonite Blending	
		EQUI 157	EU252	L4 Bentonite Blending	
		EQUI 158	EU254	L4 Bentonite Blending	
		EQUI 168	EU308	L6 Bentonite Blending	
		EQUI 176	EU326	L7 Bentonite Blending	
		EQUI 177	EU329	L7 Bentonite Blending	
		EQUI 269	EU310	L6 Bentonite Blending	
		EQUI 345	EU218	L3 Bentonite Blending	
Equipment	Boiler	EQUI 346	EU219	L3 Bentonite Blending	
		EQUI 365	EU253	L4 Bentonite Blending	
		EQUI 366	EU255	L4 Bentonite Blending	
		EQUI 367	EU256	L4 Bentonite Blending	
		EQUI 196	EU001	SI 104 MMBtu Heating Boiler	
		EQUI 197	EU002	SI 104 MMBtu Heating Boiler	
Equipment	Boiler	EQUI 198	EU003	SII 125 MMBtu Heating Boiler	
		EQUI 199	EU004	SIII 153 MMBtu Heating Boiler	
		EQUI 200	EU005	SIII 153 MMBtu Heating Boiler	

SI List

AI ID (Name): 2476 (US Steel Corp - MinnTac)
Activity: IND20070001

SI Category	SI Type	Subject Item ID	Delta Designation	Description	
Equipment	Boiler	EQUI 201	EU010	24.6 MMBtu Boiler	
		EQUI 202	EU011	24.6 MMBtu Boiler	
	Cleaning Equipment	EQUI 676	Null	Clean-up Materials	
	Continuous Emission Monitor	EQUI 256	MR001	NOx CEMS at Line 3 Waste Gas Stack	
		EQUI 257	MR001	SO2 CEMS at Line 3 Waste Gas Stack	
		EQUI 258	MR003	NOx CEMS at Line 5 Waste Gas Stack	
		EQUI 259	MR003	SO2 CEMS at Line 5 Waste Gas Stack (SV 127)	
		EQUI 260	MR004	SO2 CEMS at Line 6 Waste Gas Stack (SV 144)	
		EQUI 261	MR004	NOx CEMS at Line 6 Waste Gas Stack (SV 144)	
		EQUI 262	MR005	SO2 CEMS at Line 7 Waste Gas Stack (SV 151)	
		EQUI 263	MR005	NOx CEMS at Line 7 Waste Gas Stack (SV 151)	
		EQUI 264	MR002	SO2 CEMS at Line 4 Waste Gas Stack (SV 118)	
		EQUI 265	MR002	NOx CEMS at Line 4 Waste Gas Stack (SV 118)	
		EQUI 713	Null	L3 Air Flow Meter	
		EQUI 714	Null	L4 Air Flow Meter	
		EQUI 715	Null	L5 Air Flow Meter	
		EQUI 716	Null	L6 Air Flow Meter	
		EQUI 717	Null	L7 Air Flow Meter	
	Conveyor	EQUI 6	EU099	Conveyor Transfer 008 to 009	
		EQUI 7	EU101	Conveyor Transfer 008 to 009	
		EQUI 8	EU104	Conveyor Transfer 008-009	
		EQUI 11	EU111	Conveyor Transfer 001-070 Bin	
		EQUI 12	EU114	Conveyor Transfer 003-004	
		EQUI 36	EU278	L5 Grate Feed	
		EQUI 37	EU279	L5 Grate Discharge	
		EQUI 51	EU040	Conveyor Transfer 005-006	
		EQUI 52	EU049	Conveyor Transfer 005 Feed	
		EQUI 53	EU050	Conveyor Transfer 005 Discharge	
		EQUI 77	EU037	Conveyor Transfer 010-01	
		EQUI 78	EU038	Conveyor Transfer 010-01	
		EQUI 79	EU264	L4 Conveyor Transfer Feeder	
		EQUI 81	EU287	L5 Conveyor Transfer 041/046 to 042 Belts	
		EQUI 82	EU288	L5 Conveyor Transfer 041/046 to 042 Belts	
		EQUI 87	EU296	S3 Conveyor Transfer	
		EQUI 96	EU311	L6 Grate Feed	
		EQUI 97	EU312	L6 Grate Discharge	
		EQUI 104	EU330	L7 Grate Feed	
		EQUI 109	EU342	Step III 042 Conveyor Vent	
		EQUI 110	EU343	Step III 043 Conveyor Vent	
		EQUI 111	EU345	Step III 044 Conveyor Vent	
		EQUI 112	EU347	Step III 044 Conveyor Vent	
		EQUI 113	EU349	Step III 044 Conveyor Vent	
		EQUI 114	EU350	Step III 044 Conveyor Vent	
		EQUI 115	EU352	Step III 044 Conveyor Vent	
		EQUI 116	EU354	Step III 044 Conveyor Vent	
		EQUI 117	EU356	Step III 044 Conveyor Vent	
		EQUI 118	EU358	Step III 044 Conveyor Vent	
		EQUI 119	EU318	L6 Conveyor Transfer	
		EQUI 120	EU319	L6 Conveyor Transfer	
		EQUI 122	EU337	L7 Conveyor Transfer	
		EQUI 123	EU338	L7 Conveyor Transfer	
		EQUI 148	EU230	L3 041/046 Conveyor Belt Vent	
		EQUI 149	EU232	S1 Conveyor Transfer 042-043	
		EQUI 150	EU235	L3 Conveyor Transfer 041-042	
		EQUI 159	EU257	L4 Grate Feed	
		EQUI 164	EU295	S3 Conveyor Transfer	
		EQUI 173	EU190	Conveyor Transfer 009-020	
		EQUI 178	EU331	L7 Grate Discharge	
		EQUI 180	EU341	Step III 042 Conveyor Vent	
		EQUI 181	EU344	Step III 043 Conveyor Vent	
		EQUI 182	EU346	Step III 044 Conveyor Vent	
		EQUI 183	EU348	Step III 044 Conveyor Vent	
		EQUI 184	EU351	Step III 044 Conveyor Vent	
		EQUI 185	EU353	Step III 044 Conveyor Vent	
		EQUI 186	EU355	Step III 044 Conveyor Vent	
		EQUI 187	EU357	Step III 044 Conveyor Vent	
		EQUI 240	EU191	Conveyor Transfer 009-020	
		EQUI 241	EU192	Conveyor Transfer 009-020	
		EQUI 272	EU285	L5 Conveyor Transfer Feeder (B4 L5 hygiene)	
		EQUI 275	EU394	Limestone Dump Pocket	
		EQUI 284	EU105	Conveyor Transfer 008-009	
		EQUI 288	EU112	Conveyor Transfer 003	
		EQUI 289	EU113	Conveyor Transfer 003	

SI List

AI ID (Name): 2476 (US Steel Corp - MinnTac)
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SI Category	SI Type	Subject Item ID	Delta Designation	Description	
Equipment	Conveyor	EQUI 290	EU115	Conveyor Transfer 003-004	
		EQUI 309	EU140	Conveyor Transfer 005-006	
		EQUI 310	EU141	Conveyor Transfer 005-006	
		EQUI 313	EU144	Conveyor Transfer 009-020	
		EQUI 314	EU145	Conveyor Transfer 009-020	
		EQUI 315	EU267	L4 Conveyor Transfer 041/046 to 042 Belts	
		EQUI 318	EU034	Conveyor Transfer 005-006	
		EQUI 319	EU036	Conveyor Transfer 010-01	
		EQUI 320	EU039	Conveyor Transfer 010-01	
		EQUI 321	EU041	Conveyor Transfer 004-005	
		EQUI 322	EU043	Conveyor Transfer 004-005	
		EQUI 323	EU045	Conveyor Transfer 004-005	
		EQUI 324	EU047	Conveyor Transfer 011-02/03	
		EQUI 326	EU052	Conveyor Transfer 008 to 009	
		EQUI 330	EU059	Conveyor Transfer 005 to 006	
		EQUI 331	EU061	Conveyor Transfer 003 to 004	
		EQUI 332	EU063	Conveyor Transfer 003 to 004	
		EQUI 333	EU064	Conveyor Transfer 003 to 004	
		EQUI 342	EU098	Conveyor Transfer 008 to 009	
		EQUI 343	EU100	Conveyor Transfer 008 to 009	
		EQUI 347	EU221	L3 Grate Feed	
		EQUI 348	EU222	L3 Grate Discharge	
		EQUI 352	EU231	L3 041/046 Conveyor Belt Vent	
		EQUI 353	EU233	S1 Conveyor Transfer 042-043	
		EQUI 354	EU234	L3 Conveyor Transfer 041-042	
		EQUI 368	EU258	L4 Grate Discharge	
		EQUI 372	EU266	L4 Conveyor Transfer 041/046 to 042 Belts	
		EQUI 377	EU035	Conveyor Transfer 005-006	
		EQUI 378	EU042	Conveyor Transfer 004-005	
		EQUI 379	EU044	Conveyor Transfer 004-005	
		EQUI 380	EU046	Conveyor Transfer 004-005	
		EQUI 381	EU053	Conveyor Transfer 008 to 009	
		EQUI 383	EU058	Conveyor Transfer 005 to 006	
		EQUI 384	EU060	Conveyor Transfer 005 to 006	
		EQUI 385	EU062	Conveyor Transfer 003 to 004	
		EQUI 393	EU146	Conveyor Transfer 009-020	
		EQUI 394	EU147	Conveyor Transfer 009-020	
		EQUI 395	EU193	Conveyor Transfer 009-020	
		EQUI 678	Null	Conveyor Transfer HPGR	
		EQUI 679	Null	Conveyor Transfer HPGR	
		EQUI 680	Null	Conveyor Transfer HPGR	
		EQUI 681	Null	Conveyor Transfer HPGR	
		EQUI 682	Null	HPGR Grinder	
		EQUI 683	Null	Conveyor Transfer HPGR	
		EQUI 685	Null	Coal Day Bin/Conveyor Transfer	
		EQUI 697	Null	Conveyor Transfer	
		EQUI 698	Null	Conveyor Transfer	
		EQUI 699	Null	Conveyor Transfer	
		EQUI 700	Null	Conveyor Transfer	
		EQUI 701	Null	Conveyor Transfer	
		EQUI 702	Null	Conveyor Transfer	
	Cooler	EQUI 41	EU284	L5 Pellet Cooler Vent Stack	
		EQUI 42	EU286	L5 Cooler Discharge / Fines Conveyor	
		EQUI 147	EU228	L3 Cooler Discharge	
		EQUI 267	EU397	L6 Pellet Cooler Vent Stack	
		EQUI 268	EU398	L7 Pellet Cooler Vent Stack	
		EQUI 350	EU227	L3 Cooler Vent Stack	
		EQUI 370	EU263	L4 Pellet Cooler Vent Stack	
		EQUI 371	EU265	L4 Cooler Discharge / Fines Conveyor	
	Crusher	EQUI 5	EU097	Secondary Crusher L10	
		EQUI 9	EU106	Secondary Crusher L11	
		EQUI 10	EU109	Secondary Crusher L14	
		EQUI 47	EU013	Step I Coarse Crusher	
		EQUI 48	EU017	Step III Coarse Crusher	
		EQUI 55	EU075	Tertiary Crusher L7	
		EQUI 56	EU076	Tertiary Crusher L8	
		EQUI 57	EU077	Tertiary Crusher L9	
		EQUI 58	EU078	Tertiary Crusher L10	
		EQUI 59	EU079	Tertiary Crusher L11	
		EQUI 60	EU080	Tertiary Crusher L12	
		EQUI 61	EU081	Tertiary Crusher L13	
		EQUI 62	EU082	Tertiary Crusher L14	
		EQUI 63	EU083	Tertiary Crusher L15	

SI List

AI ID (Name): 2476 (US Steel Corp - MinnTac)
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SI Category	SI Type	Subject Item ID	Delta Designation	Description	
Equipment	Crusher	EQUI 64	EU084	Tertiary Crusher L16	
		EQUI 72	EU015	Step II Coarse Crusher	
		EQUI 283	EU103	Secondary Crusher L5	
		EQUI 285	EU107	Secondary Crusher L12	
		EQUI 286	EU108	Secondary Crusher L13	
		EQUI 287	EU110	Secondary Crusher L15	
		EQUI 297	EU128	Tertiary Crusher L18	
		EQUI 298	EU129	Tertiary Crusher L19	
		EQUI 299	EU130	Tertiary Crusher L20	
		EQUI 300	EU131	Tertiary Crusher L21	
		EQUI 301	EU132	Tertiary Crusher L22	
		EQUI 303	EU134	Tertiary Crusher L24	
		EQUI 304	EU135	Tertiary Crusher L25	
		EQUI 305	EU136	Tertiary Crusher L26	
		EQUI 327	EU054	Secondary Crusher L1	
		EQUI 328	EU055	Secondary Crusher L2	
		EQUI 329	EU057	Secondary Crusher L4	
		EQUI 335	EU069	Tertiary Crusher L1	
		EQUI 336	EU071	Tertiary Crusher L3	
		EQUI 337	EU073	Tertiary Crusher L5	
		EQUI 338	EU074	Tertiary Crusher L6	
		EQUI 339	EU093	Secondary Crusher L6	
		EQUI 340	EU095	Secondary Crusher L8	
		EQUI 341	EU096	Secondary Crusher L9	
		EQUI 382	EU056	Secondary Crusher L3	
		EQUI 388	EU070	Tertiary Crusher L2	
		EQUI 389	EU072	Tertiary Crusher L4	
		EQUI 390	EU094	Secondary Crusher L7	
		EQUI 673	EU402	Tertiary Crusher Line 28 New	
		EQUI 674	EU405	Replacement Tertiary Crusher L23 (Metso)	
		EQUI 675	EU406	Replacement Tertiary Crusher L27 (Metso)	
	Data Acquisition System	EQUI 718	Null	Agglomerator Lines 3-7 DAS	
		EQUI 726	Null	Agglomerator Lines 3-7 Parameter DAS	
	Feeder	EQUI 206	EU022	Step I Coarse Crusher Pan Feeders	
		EQUI 207	EU023	Step I Coarse Crusher Pan Feeders	
		EQUI 208	EU024	Step II Coarse Crusher Pan Feeders	
		EQUI 281	EU026	Step III Coarse Crusher Pan Feeders	
		EQUI 351	EU229	L3 Feeder 041/046 Belts	
		EQUI 374	EU025	Step II Coarse Crusher Pan Feeders	
		EQUI 375	EU027	Step III Coarse Crusher Pan Feeders	
	Furnace	EQUI 282	EU028	Zinc Melt Furnace	
		EQUI 311	EU142	Zinc Melt Furnace	
		EQUI 312	EU143	Zinc Melt Furnace	
		EQUI 317	EU031	Zinc Melt Furnace	
		EQUI 376	EU032	Zinc Melt Furnace	
	Hopper	EQUI 278	EU300	S3 Ben storage+unloading hopper	
		EQUI 684	Null	Coal Unloading Hopper	
		EQUI 705	EU393	Limestone Dump Pocket	
	Kiln	EQUI 3	EU315	L6 Rotary Kiln	
		EQUI 146	EU225	L3 Rotary Kiln	
		EQUI 179	EU334	L7 Rotary Kiln	
		EQUI 279	EU261	L4 Rotary Kiln	
		EQUI 280	EU282	L5 Rotary Kiln	
	Loading-Unloading Equipment	EQUI 127	EU366	Step III Pellet Loadout	
		EQUI 359	EU243	S1,2 Bentonite Unloading	
	Material Handling Equipment	EQUI 108	EU340	Step I 043/044 Conveyor Transfer	
		EQUI 124	EU359	Step III 043/044 Conveyor Transfer	
		EQUI 125	EU361	Step III 043/044 Conveyor Transfer	
		EQUI 126	EU363	Step III 044-6/044-7 Conveyor Transfer	
		EQUI 188	EU360	Step III 043/044 Conveyor Transfer	
		EQUI 189	EU362	Step III 043/044 Conveyor Transfer	
		EQUI 190	EU364	Step III 044-6/044-7 Conveyor Transfer	
		EQUI 191	EU365	Step III 044-6/044-7 Conveyor Transfer	
		EQUI 266	EU396	Hill Wood Products system	
		EQUI 270	EU339	Step I 043/044 Conveyor Transfer	
		EQUI 325	EU048	Surge Pile/Reclaim 011-01	
		EQUI 704	EU395	Limestone Conveyor Transfer 2	
	Other Combustion	EQUI 712	Null	Burnout Oven	
	Other Emission Unit	EQUI 373	EU389	Electric Shop Curing Oven (new)	
		EQUI 707	Null	Line 3 Waste Gas Cyclone	
		EQUI 708	Null	Line 4 Waste Gas Cyclone	
		EQUI 709	Null	Line 5 Waste Gas Cyclone	
		EQUI 710	Null	Line 6 Waste Gas Cyclone	

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AI ID (Name): 2476 (US Steel Corp - MinnTac)
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SI Category	SI Type	Subject Item ID	Delta Designation	Description	
Equipment	Other Emission Unit	EQUI 711	Null	Line 7 Waste Gas Cyclone	
	Parametric Monitor	EQUI 721	Null	Line 3 Kiln Exit Temp Continuous Monitor	
		EQUI 722	Null	Line 4 Kiln Exit Temp Continuous Monitor	
		EQUI 723	Null	Line 5 Kiln Exit Temp Continuous Monitor	
		EQUI 724	Null	Line 6 Kiln Exit Temp Continuous Monitor	
		EQUI 725	Null	Line 7 Kiln Exit Temp Continuous Monitor	
	Process Heater	EQUI 255	EU401	Heaters (25 units, Ltr 8/10/01)	
	Reciprocating IC Engine	EQUI 274	EU216	Diesel Generator	
		EQUI 671	EU404	Diesel Generator	
		EQUI 672	EU413	New Emergency Generator	
		EQUI 688	Null	Utility Plant Diesel Generator S1	
		EQUI 689	Null	Utility Plant Diesel Generator S3	
		EQUI 690	Null	Utility Plant Diesel Pump	
		EQUI 691	Null	Diesel Generator	
		EQUI 692	Null	Diesel Generator	
		EQUI 693	Null	Diesel Generator	
		EQUI 694	Null	Diesel Generator	
		EQUI 695	Null	Diesel Generator	
		EQUI 696	Null	Diesel Generator	
		EQUI 703	Null	Fire Hall Emergency Generator	
		EQUI 706	Null	Step II Agglomerator Emergency Generator	
	Screens	EQUI 46	EU399	L4 Pellet Scrn Fine Belt	
		EQUI 273	EU400	L5 Pellet Scrn Fine Belt	
Silo/Bin		EQUI 13	EU116	Tertiary Storage 006-080 Bin	
		EQUI 14	EU118	Tertiary Storage 006-080 Bin	
		EQUI 15	EU120	Tertiary Storage 006-080 Bin	
		EQUI 19	EU160	Storage Bin L3,4	
		EQUI 20	EU162	Storage Bin L5,6	
		EQUI 21	EU165	Storage Bin L5,6	
		EQUI 22	EU168	Storage Bin L5,6	
		EQUI 23	EU171	Storage Bin L7,8	
		EQUI 24	EU174	Storage Bin L7,8	
		EQUI 25	EU177	Storage Bin L9,10	
		EQUI 26	EU179	Storage Bin L9,10	
		EQUI 27	EU269	L5 Bentonite Day Bins	
		EQUI 28	EU270	L5 Bentonite Day Bins	
		EQUI 29	EU271	L5 Bentonite Day Bins	
		EQUI 30	EU272	L5 Bentonite Day Bins	
		EQUI 54	EU068	Tertiary Storage Bin 1-4	
		EQUI 65	EU085	Tertiary Crusher 080 Bins 5-8	
		EQUI 66	EU086	Tertiary Crusher 080 Bins 5-8	
		EQUI 67	EU087	Tertiary Crusher 080 Bins 5-8	
		EQUI 68	EU088	Tertiary Crusher 080 Bins 5-8	
		EQUI 88	EU298	S3 Bentonite Storage	
		EQUI 89	EU299	S3 Bentonite Storage	
		EQUI 90	EU301	L6 Bentonite Day Bin	
		EQUI 91	EU303	L6 Bentonite Day Bin	
		EQUI 92	EU304	L6 Bentonite Day Bin	
		EQUI 98	EU320	L7 Bentonite Day Bin	
		EQUI 99	EU322	L7 Bentonite Day Bin	
		EQUI 100	EU324	L7 Bentonite Day Bin	
		EQUI 136	EU198	Storage Bin L13,14	
		EQUI 137	EU201	Storage Bin L15,16	
		EQUI 138	EU203	Storage Bin L15,16	
		EQUI 139	EU206	Storage Bin L15,16	
		EQUI 140	EU209	Storage Bin L17,18	
		EQUI 141	EU212	Storage Bin L17,18	
		EQUI 142	EU214	Storage Bin L17,18	
		EQUI 151	EU237	S1 Bentonite Storage Bin	
		EQUI 152	EU239	L2,3 Bentonite Day Bin	
		EQUI 153	EU242	L2,3 Bentonite Day Bin	
		EQUI 154	EU244	S2 Bentonite Storage Bin	
		EQUI 155	EU247	L4 Bentonite Day Bins	
		EQUI 156	EU249	L4 Bentonite Day Bins	
		EQUI 165	EU297	S3 Bentonite Storage	
		EQUI 166	EU302	L6 Bentonite Day Bin	
		EQUI 167	EU305	L6 Bentonite Day Bin	
		EQUI 169	EU321	L7 Bentonite Day Bin	
		EQUI 170	EU182	Storage Bin L9,10	
		EQUI 171	EU185	Storage Bin L11,12	
		EQUI 172	EU188	Storage Bin L11,12	
		EQUI 174	EU195	Storage Bin L13,14	
		EQUI 175	EU323	L7 Bentonite Day Bin	

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AI ID (Name): 2476 (US Steel Corp - MinnTac)
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SI Category	SI Type	Subject Item ID	Delta Designation	Description	
Equipment	Silo/Bin	EQUI 209	EU148	Storage Bin L1,2	
		EQUI 210	EU149	Storage Bin L1,2	
		EQUI 211	EU150	Storage Bin L1,2	
		EQUI 212	EU151	Storage Bin L1,2	
		EQUI 213	EU152	Storage Bin L1,2	
		EQUI 214	EU153	Storage Bin L1,2	
		EQUI 215	EU154	Storage Bin L1,2	
		EQUI 216	EU155	Storage Bin L3,4	
		EQUI 217	EU156	Storage Bin L3,4	
		EQUI 218	EU157	Storage Bin L3,4	
		EQUI 219	EU158	Storage Bin L3,4	
		EQUI 220	EU159	Storage Bin L3,4	
		EQUI 221	EU161	Storage Bin L3,4	
		EQUI 222	EU163	Storage Bin L5,6	
		EQUI 223	EU164	Storage Bin L5,6	
		EQUI 224	EU166	Storage Bin L5,6	
		EQUI 225	EU167	Storage Bin L5,6	
		EQUI 226	EU169	Storage Bin L7,8	
		EQUI 227	EU170	Storage Bin L7,8	
		EQUI 228	EU172	Storage Bin L7,8	
		EQUI 229	EU173	Storage Bin L7,8	
		EQUI 230	EU175	Storage Bin L7,8	
		EQUI 231	EU176	Storage Bin L9,10	
		EQUI 232	EU178	Storage Bin L9,10	
		EQUI 233	EU180	Storage Bin L9,10	
		EQUI 234	EU181	Storage Bin L9,10	
		EQUI 235	EU183	Storage Bin L11,12	
		EQUI 236	EU184	Storage Bin L11,12	
		EQUI 237	EU186	Storage Bin L11,12	
		EQUI 238	EU187	Storage Bin L11,12	
		EQUI 239	EU189	Storage Bin L11,12	
		EQUI 242	EU194	Storage Bin L13,14	
		EQUI 243	EU196	Storage Bin L13,14	
		EQUI 244	EU197	Storage Bin L13,14	
		EQUI 245	EU199	Storage Bin L13,14	
		EQUI 246	EU200	Storage Bin L13,14	
		EQUI 247	EU202	Storage Bin L15,16	
		EQUI 248	EU204	Storage Bin L15,16	
		EQUI 249	EU205	Storage Bin L15,16	
		EQUI 250	EU207	Storage Bin L15,16	
		EQUI 251	EU208	Storage Bin L17,18	
		EQUI 252	EU210	Storage Bin L17,18	
		EQUI 253	EU211	Storage Bin L17,18	
		EQUI 254	EU213	Storage Bin L17,18	
		EQUI 291	EU117	Tertiary Storage 006-080 Bin	
		EQUI 292	EU119	Tertiary Storage 006-080 Bin	
		EQUI 293	EU121	Tertiary Storage 006-080 Bin	
		EQUI 316	EU268	L5 Bentonite Day Bins	
		EQUI 355	EU236	S1 Bentonite Storage Bin	
		EQUI 356	EU238	S1 Bentonite Storage Bin	
		EQUI 357	EU240	L2,3 Bentonite Day Bin	
		EQUI 358	EU241	L2,3 Bentonite Day Bin	
		EQUI 360	EU245	S2 Bentonite Storage Bin	
		EQUI 361	EU246	S2 Bentonite Storage Bin	
		EQUI 362	EU248	L4 Bentonite Day Bins	
		EQUI 363	EU250	L4 Bentonite Day Bins	
		EQUI 364	EU251	L4 Bentonite Day Bins	
		EQUI 386	EU065	Tertiary Storage Bin 1-4	
		EQUI 387	EU067	Tertiary Storage Bin 1-4	
		EQUI 392	EU102	Conveyor Transfer 001 to 070	
Fugitive	Material Handling/Transfer/Storage	FUGI 18	FS005	Blasting & material handling	
		FUGI 36	Null	Contractor Activities	
		FUGI 37	FS018	Step III crude ore stockpile	
	Open Air Source	FUGI 16	FS030	Tailings Basin	
	Piles	FUGI 1	FS015	Group 13 screened pellets stock pile	
		FUGI 3	FS012	Coarse tailings stock pile	
		FUGI 4	FS010	Ballast fines rock stock pile - east pit	
		FUGI 5	FS009	Ballast product rock stock pile - western	
		FUGI 6	FS001	Surface overburden stock pile	
		FUGI 9	FS025	Crude Ore Stock Pile	
		FUGI 10	FS016	Group 13 screened fines stock pile	
		FUGI 11	FS006	Ballast feed rock stock pile - east pit	
		FUGI 12	FS026	Waste Rock Stock Pile	

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SI Category	SI Type	Subject Item ID	Delta Designation	Description	
Fugitive	Piles	FUGI 14	FS017	Step I/II crude ore stock pile	
		FUGI 15	FS021	Step II/III concentrate stock pile	
		FUGI 17	FS023	Step I/II pellet main stock pile #45	
		FUGI 19	FS027	Step I/II Crude Ore Stockpile Temp 72	
		FUGI 21	FS028	Step III Crude Ore Stockpile Temp 74	
		FUGI 22	FS008	Ballast product rock stock pile - east pit	
		FUGI 23	FS022	Step I/II pellet main stock pile #44	
		FUGI 24	FS014	Group 13 feed stock pile	
		FUGI 25	FS011	Ballast fines rock stock pile - western	
		FUGI 27	FS013	Scrap rod stock pile	
		FUGI 28	FS024	Step III pellet main stock pile	
		FUGI 29	FS007	Ballast feed rock stock pile - western	
		Unpaved Roads	FUGI 8	FS002	Unpaved road for heavy-duty vehicles
FUGI 20	FS003		Unpaved road for secondary vehicles		
FUGI 26	FS004		Unpaved road for light-duty vehicles		
Structure	Building	STRU 5	BG001	Utility Plant	
		STRU 6	BG002	Step I & II Boiler Bldg	
		STRU 7	BG003	Step III Boiler Bldg	
		STRU 8	BG004	Generator Bldg	
		STRU 9	BG005	Mobile Equipment Shop	
		STRU 10	BG006	Heating Boilers 1 & 2	
		STRU 11	BG007	Emergency Generator Shed	
		STRU 12	BG008	Step I & II Coarse Crusher	
		STRU 13	BG009	CC Dump Pocket Baghouses	
		STRU 14	BG010	Conveyor Transfers	
		STRU 15	BG011	Step I & II Zinc Furnaces	
		STRU 16	BG012	Step III Coarse Crusher	
		STRU 17	BG013	CC Dump Pocket Baghouse	
		STRU 18	BG014	Panfeeder to Conveyor	
		STRU 19	BG015	Step III Zinc Furnaces	
		STRU 20	BG016	Step I & II Turn Bin Area	
		STRU 21	BG017	Step I & II Turn Bin	
		STRU 22	BG018	Stockpile Reclaim Scrubber House	
		STRU 23	BG019	Conveyor	
		STRU 24	BG020	Step III Turn Bin Area	
		STRU 25	BG021	Step III Turn Bin	
		STRU 26	BG022	Transfer House	
		STRU 27	BG023	Fines Crusher	
		STRU 28	BG024	Step I & II Fines Crusher Bldg	
		STRU 29	BG025	Step I Fines Crusher Bldg	
		STRU 30	BG026	Step III Fines Crusher Bldg	
		STRU 31	BG027	Step III Conveyor Bldg	
		STRU 32	BG028	Step III Fines Crusher Bldg	
		STRU 33	BG029	Step III Fines Crusher Bldg	
		STRU 34	BG030	Concentrator	
		STRU 35	BG031	Step I & II Concentrator	
		STRU 36	BG032	Step I Concentrator	
		STRU 37	BG033	Step I & III Concentrator	
		STRU 38	BG034	Agglomerator I & II	
		STRU 39	BG035	Step I & II Agglomerator	
		STRU 40	BG036	Step I & II Agglomerator	
		STRU 41	BG037	Step I & II Agglomerator	
		STRU 42	BG038	Step I & II Agglomerator	
		STRU 43	BG039	Step I & II Agglomerator	
		STRU 44	BG040	Step I & II Agglomerator	
		STRU 45	BG041	Step I & II Agglomerator	
		STRU 46	BG042	Agglomerator Step III	
		STRU 47	BG043	Step III Agglomerator	
		STRU 48	BG044	Step III Agglomerator	
		STRU 49	BG045	Step III Agglomerator	
		STRU 50	BG046	Step III Agglomerator	
		STRU 51	BG047	Step III Agglomerator	
		STRU 52	BG048	Coal Day Bin	
		STRU 53	BG049	Generator Bldg	
		STRU 54	BG050	Coal Unloading & Storage Silo	
		STRU 55	BG051	Step III Cooling Tower	
		STRU 56	BG052	Incinerator	
		STRU 57	BG053	Central Shops	
		STRU 58	BG054	Central Shop	
		STRU 59	BG055	Carpenter's Shop	
		STRU 89	BG056	Paint Shop Booth	
		STRU 90	BG057	Step I & II Pellet Loadout	
		STRU 91	BG058	Step III Pellet Loadout	

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SI Category	SI Type	Subject Item ID	Delta Designation	Description	
Structure	Stack/Vent	STRU 60	SV127	L5 Waste Gas Stack	
		STRU 61	SV129	L5 Conveyor Transfer Feeder	
		STRU 64	SV138	S3 Conveyor Transfer	
		STRU 66	SV143	L6 Grate Discharge	
		STRU 67	SV146	L6 Conveyor Transfer	
		STRU 69	SV151	L7 Waste Gas Stack	
		STRU 70	SV153	L7 Conveyor Transfer	
		STRU 71	SV155	Step I 043/044 Conv. Trans	
		STRU 72	SV157	Step III 042 Conveyor Vent	
		STRU 73	SV160	Step III 044 Conveyor Vent	
		STRU 74	SV162	Step III 044 Conveyor Vent	
		STRU 75	SV164	Step III 044 Conveyor Vent	
		STRU 76	SV166	Step III 044 Conveyor Vent	
		STRU 77	SV168	Step III 044 Conveyor Vent	
		STRU 78	SV170	Step III 044 Conveyor Vent	
		STRU 79	SV172	Step III 044 Conveyor Vent	
		STRU 80	SV174	Step III 043/044 Conveyor Transfer	
		STRU 81	SV176	Step III 043/044 Conveyor Transfer	
		STRU 82	SV178	Step III 044-6/044-7 Conveyor Transfer	
		STRU 83	SV180	Step III Pellet Loadout	
		STRU 84	SV182	Coal Day Bin/Conveyor Transfer	
		STRU 85	SV184	Diesel Generator	
		STRU 86	SV187	Diesel Air Compressor	
		STRU 88	SV192	Paint Shop Booth	
		STRU 92	SV030	Conveyor Transfer 008-009	
		STRU 94	SV032	Secondary Crusher L2	
		STRU 95	SV033	Secondary Crusher L3	
		STRU 96	SV034	Secondary Crusher L4	
		STRU 97	SV035	Conveyor Transfer 005-006	
		STRU 98	SV036	Conveyor Transfer 003-004	
		STRU 100	SV038	Tertiary Crusher L1	
		STRU 101	SV039	Tertiary Crusher L2	
		STRU 102	SV040	Tertiary Crusher L3	
		STRU 103	SV042	Tertiary Crusher L5	
		STRU 104	SV043	Tertiary Crusher L6	
		STRU 105	SV044	Tertiary Crusher L7	
		STRU 106	SV045	Tertiary Crusher L8	
		STRU 107	SV046	Tertiary Crusher L9	
		STRU 108	SV047	Tertiary Crusher L10	
		STRU 109	SV048	Tertiary Crusher L11	
		STRU 110	SV049	Tertiary Crusher L12	
		STRU 111	SV050	Tertiary Crusher L13	
		STRU 112	SV051	Tertiary Crusher L14	
		STRU 113	SV193	Step III Bentonite Storage Baghouse	
		STRU 114	SV089	Storage Bin L3, 4	
		STRU 115	SV091	Storage Bin L7, 8	
		STRU 116	SV092	Storage Bin L9, 10	
		STRU 117	SV094	Conveyor Transfer 009-020	
		STRU 118	SV096	Storage Bin L15, 16	
		STRU 119	SV098	Diesel Generator	
		STRU 120	SV101	L3 Grate Feed	
		STRU 121	SV104	L3 Cooler Vent Stack	
		STRU 122	SV106	L3 Feeder 041, 046 Belts	
		STRU 123	SV108	S1 Conveyor Transfer 042-043	
		STRU 125	SV112	S1, 2 Bentonite Unloading	
		STRU 127	SV116	L4 Grate Feed	
		STRU 128	SV117	L4 Grate Discharge	
		STRU 129	SV119	L4 Cooler Vent Stack	
		STRU 130	SV121	L4 Cooler Dump Zone	
		STRU 133	SV128	L5 Cooler Vent Stack	
		STRU 134	SV130	L5 Cooler Dump Zone	
		STRU 139	SV139	S3 Bentonite Storage	
		STRU 141	SV142	L6 Grate Feed	
		STRU 142	SV001	SI 104 MMBtu Boiler	
		STRU 143	SV002	SI 104 MMBtu Boiler	
		STRU 144	SV003	SII 125 MMBtu Boiler	
		STRU 145	SV004	SIII 153 MMBtu Boiler	
		STRU 146	SV005	SIII 153 MMBtu Boiler	
		STRU 147	SV006	Diesel Generator	
		STRU 148	SV009	Diesel Fire Pump	
		STRU 149	SV010	24.6 MMBtu Boiler	
		STRU 150	SV011	24.6 MMBtu Boiler	
		STRU 151	SV012	Diesel Generator	

SI List

AI ID (Name): 2476 (US Steel Corp - MinnTac)
Activity: IND20070001

SI Category	SI Type	Subject Item ID	Delta Designation	Description	
Structure	Stack/Vent	STRU 152	SV013	Step I Coarse Crusher	
		STRU 153	SV014	Step II Coarse Crusher	
		STRU 154	SV015	Step III Coarse Crusher	
		STRU 155	SV144	L6 Waste Gas Stack	
		STRU 157	SV149	L7 Grate Feed	
		STRU 158	SV154	Step I 043/044 Conv. Trans	
		STRU 159	SV156	Step III 042 Conveyor Vent	
		STRU 160	SV158	Step III 043 Conveyor Vent	
		STRU 161	SV159	Step III 043 Conveyor Vent	
		STRU 162	SV161	Step III 044 Conveyor Vent	
		STRU 163	SV163	Step III 044 Conveyor Vent	
		STRU 164	SV165	Step III 044 Conveyor Vent	
		STRU 165	SV167	Step III 044 Conveyor Vent	
		STRU 166	SV169	Step III 044 Conveyor Vent	
		STRU 167	SV171	Step III 044 Conveyor Vent	
		STRU 168	SV173	Step III 044 Conveyor Vent	
		STRU 169	SV177	Step III 043/044 Conveyor Transfer	
		STRU 170	SV179	Step III 044-6/044-7 Conveyor Transfer	
		STRU 171	SV181	Coal Unloading Silo	
		STRU 172	SV183	Diesel Generator	
		STRU 173	SV185	Diesel Generator	
		STRU 174	SV186	Diesel Generator	
		STRU 175	SV189	Electric Shop Curing Oven	
		STRU 176	SV190	Burnout Oven	
		STRU 177	SV191	Carpenters Shop	
		STRU 178	SV058	Secondary Crusher L9	
		STRU 179	SV028	Conveyor Transfer 005 Discharge	
		STRU 180	SV060	Conveyor Transfer 008-009	
		STRU 181	SV063	Conveyor Transfer 008-009	
		STRU 182	SV065	Secondary Crusher L12	
		STRU 183	SV067	Secondary Crusher L14	
		STRU 184	SV069	Conveyor Transfer 001-070 Bin	
		STRU 185	SV072	Tertiary Storage 006-080 Bins	
		STRU 186	SV074	Tertiary Crusher L19	
		STRU 187	SV076	Tertiary Crusher L21	
		STRU 188	SV079	Tertiary Crusher L24	
		STRU 189	SV081	Tertiary Crusher L26	
		STRU 190	SV083	Tertiary Crusher L28	
		STRU 191	SV085	Conveyor Transfer 005-006	
		STRU 192	SV088	Storage Bin L1, 2	
		STRU 193	SV090	Storage Bin L5, 6	
		STRU 194	SV008	Diesel Generator	
		STRU 195	SV017	Step II Coarse Crusher Pan Feeders	
		STRU 196	SV022	Conveyor Transfer 010-01	
		STRU 197	SV093	Storage Bin L11, 12	
		STRU 198	SV095	Storage Bin L13, 14	
		STRU 199	SV097	Storage Bin L17, 18	
		STRU 201	SV102	L3 Grate Discharge	
		STRU 202	SV105	L3 Cooler Dump Zone	
		STRU 203	SV107	L3 041/046 Conveyor Belt Vent	
		STRU 204	SV109	L1 Conveyor Transfer 041-042	
		STRU 208	SV118	L4 Waste Gas Stack	
		STRU 209	SV120	L4 Conveyor Transfer Feeder	
		STRU 210	SV016	Step I Coarse Crusher Pan Feeders	
		STRU 211	SV018	Step III Coarse Crusher Pan Feeders	
		STRU 212	SV019	Zinc Melt Furnace	
		STRU 213	SV020	Zinc Melt Furnace	
		STRU 214	SV021	Conveyor Transfer 005-006	
		STRU 215	SV023	Conveyor Transfer 005-006	
		STRU 216	SV024	Conveyor Transfer 004-005	
		STRU 217	SV025	Conveyor Transfer 011-02/03	
		STRU 218	SV026	Surge Pile/Reclaim 011-01	
		STRU 219	SV027	Conveyor Transfer 005 Feed	
		STRU 220	SV029	Diesel Generator	
		STRU 221	SV125	L5 Grate Feed	
		STRU 222	SV041	Tertiary Crusher L4	
		STRU 223	SV055	Secondary Crusher L6	
		STRU 224	SV078	Tertiary Crusher L23	
		STRU 225	SV103	L3 Waste Gas Stack	
		STRU 226	SV126	L5 Grate Discharge	
		STRU 227	SV150	L7 Grate Discharge	
		STRU 228	SV175	Step III 043/044 Conveyor Transfer	
		STRU 229	SV099	Diesel Generator	

SI List

AI ID (Name): 2476 (US Steel Corp - MinnTac)
Activity: IND20070001

SI Category	SI Type	Subject Item ID	Delta Designation	Description	
Structure	Stack/Vent	STRU 230	SV122	L4 Conveyor Transfer 041-046 to 042 Belts	
		STRU 231	SV052	Tertiary Crusher L15	
		STRU 232	SV053	Tertiary Crusher L16	
		STRU 234	SV056	Secondary Crusher L7	
		STRU 235	SV057	Secondary Crusher L8	
		STRU 236	SV059	Secondary Crusher L10	
		STRU 237	SV061	Storage Bin 070-02	
		STRU 238	SV062	Secondary Crusher L5	
		STRU 239	SV064	Secondary Crusher L11	
		STRU 240	SV066	Secondary Crusher L13	
		STRU 241	SV068	Secondary Crusher L15	
		STRU 242	SV070	Conveyor Transfer 003	
		STRU 243	SV071	Conveyor Transfer 003-004	
		STRU 244	SV073	Tertiary Crusher L18	
		STRU 245	SV075	Tertiary Crusher L20	
		STRU 246	SV077	Tertiary Crusher L22	
		STRU 247	SV080	Tertiary Crusher L25	
		STRU 248	SV082	Tertiary Crusher L27	
		STRU 249	SV084	Tertiary Crusher L29	
		STRU 250	SV086	Zinc Melt Furnace	
		STRU 251	SV087	Conveyor Transfer 009-020	
		STRU 252	SV198	Heaters (25 units, Ltr 8/10/01)	
		STRU 253	SV194	Limestone Receiving System	
		STRU 254	SV196	L6 Pellet Cooler Stack	
		STRU 255	SV197	L7 Pellet Cooler Stack	
		STRU 256	SV131	L5 Conveyor Transfer 041-046 to 042 Belts	
		STRU 259	SV195	Hill Wood Products system	
		STRU 262	SV201	Guard Shack Emergency Generator	
		STRU 264	Null	Step 1 043 Conveyor Vents	
		STRU 265	Null	Step 1 043 Conveyor Vents	
		STRU 266	Null	Step 1 043 Conveyor Vents	
		STRU 267	Null	Step 1 043 Conveyor Vents	
		STRU 268	Null	Step 1 043 Conveyor Vents	
		STRU 269	Null	Step 1 043 Conveyor Vents	
		STRU 270	Null	Fire Hall Emergency Generator	
		STRU 271	Null	Line 6 Steam Collection Exhaust Stack	
Total Facility	Air Quality Total Facility	TFAC 2	13700005	US Steel Corp - Minntac	
Treatment	001-Wet Scrubber - High Efficiency	TREA 37	CE103	Agglomerator II Line 4 Waste Gas Scrubber	
		TREA 38	CE113	Line 5 Waste Gas Scrubber	
		TREA 48	CE041	Step I Secondary Crusher Line 6 Scrubber	
		TREA 49	CE042	Step I Secondary Crusher Line 7 Scrubber	
		TREA 50	CE043	Step I Secondary Crusher Line 8 Scrubber	
		TREA 51	CE044	Step I Secondary Crusher Line 9 Scrubber	
		TREA 52	CE045	Step I Secondary Crusher Line 10 Scrubber	
		TREA 53	CE046	Step I Conveyor Transfer 008 to 009 Scrubber	
		TREA 54	CE047	Secondary Storage Bin 070-02 Scrubber	
		TREA 57	CE050	Step III Secondary Crusher Line 11 Scrubber	
		TREA 58	CE051	Step III Secondary Crusher Line 12 Scrubber	
		TREA 59	CE052	Step III Secondary Crusher Line 13 Scrubber	
		TREA 62	CE055	Conveyor Transfer 001-070 Bin Scrubber	
		TREA 63	CE056	Conveyor Transfer 003 Scrubber	
		TREA 64	CE057	Conveyor Transfer 003 to 004 Scrubber	
		TREA 65	CE058	Step III Tertiary Storage 006-080 Bins Scrubber	
		TREA 66	CE059	Step III Tertiary Crusher Line 18 Scrubber	
		TREA 67	CE060	Step III Tertiary Crusher Line 19 Scrubber	
		TREA 68	CE061	Step III Tertiary Crusher Line 20 Scrubber	
		TREA 69	CE062	Step III Tertiary Crusher Line 21 Scrubber	
		TREA 70	CE063	Step III Tertiary Crusher Line 22 Scrubber	
		TREA 71	CE064	Step III Tertiary Crusher Line 23 Scrubber	
		TREA 72	CE065	Step III Tertiary Crusher Line 24 Scrubber	
		TREA 73	CE066	Step III Tertiary Crusher Line 25 Scrubber	
		TREA 74	CE067	Step III Tertiary Crusher Line 26 Scrubber	
		TREA 75	CE068	Step III Tertiary Crusher Line 27 Scrubber	
		TREA 76	CE069	Step III Tertiary Crusher Line 28 Scrubber	
		TREA 86	CE079	Step III Concentrator Tripper Transfer Scrubber	
		TREA 103	CE099	Agglomerators II Line 4 Grate Feed Scrubber	
		TREA 104	CE100	Agglomerators II Line 4 Grate Discharge Scrubber	
		TREA 107	CE104	Agglomerator I Line 4 Cooler Discharge Scrubber	
		TREA 108	CE106	41, 46 Conveyor Transfer Scrubber	
		TREA 112	CE109	Agglomerator II Line 5 Grate Feed Scrubber	
		TREA 113	CE110	Agglomerator II Line 5 Grate Discharge Scrubber	
		TREA 120	CE006	Step III Coarse Crusher Pan Feeders Scrubber	
		TREA 121	CE007	Step III Coarse Crusher Pan Feeders Scrubber	

SI List

AI ID (Name): 2476 (US Steel Corp - MinnTac)
Activity: IND20070001

SI Category	SI Type	Subject Item ID	Delta Designation	Description	
Treatment	001-Wet Scrubber - High Efficiency	TREA 126	CE012	Transfer House Conveyor Transfer Scrubber	
		TREA 127	CE013	Surge Pile/Reclaim Scrubber	
		TREA 132	CE114	Line 5 Pellet Cooler Discharge Scrubber	
		TREA 133	CE116	41, 46 Conveyor Transfer Scrubber	
		TREA 134	CE117	Agglomerator III S3 Conveyor Transfer Scrubber	
		TREA 138	CE121	Line 6 Grate Feed Scrubber	
		TREA 139	CE122	Line 6 Grate Discharge Scrubber	
		TREA 143	CE126	Line 6 Waste Gas Stack Scrubber	
		TREA 146	CE131	Line 7 Grate Feed Scrubber	
		TREA 147	CE132	Line 7 Grate Discharge Scrubber	
		TREA 151	CE136	Line 7 Waste Gas Stack Scrubber	
		TREA 172	CE084	Line 3 Grate Feed Dynamic Wet Scrubber	
		TREA 173	CE085	Line 3 Grate Discharge Dynamic Wet Scrubber	
		TREA 174	CE089	Line 3 Cooler Discharge Dynamic Wet Scrubber	
		TREA 175	CE090	Line 3 Pellet Cooler Dynamic Wet Scrubber	
		TREA 176	CE091	Step I Agglomerator 042 043 Conveyor Dynamic Wet Scrubber	
		TREA 177	CE092	Line 3 Conveyor Transfer 041 042 Dynamic Wet Scrubber	
		TREA 178	CE105	Line 4 Fines Conveyor Dynamic Wet Scrubber	
		TREA 179	CE115	Line 5 Fines Conveyor Dynamic Wet Scrubber	
		TREA 185	CE151	Agglomerator III Line 7 Conveyor Transfer Scrubber	
		TREA 187	CE149	Step III Storage Bin Line 15, 16 Scrubber	
		TREA 188	CE152	Storage Bins Lines 1,2 Scrubber	
		TREA 189	CE153	Storage Bins Lines 3,4 Scrubber	
		TREA 190	CE154	Storage Bins Lines 5,6 Scrubber	
		TREA 191	CE155	Storage Bins Lines 7,8 Scrubber	
		TREA 192	CE156	Storage Bins Lines 9,10 Scrubber	
		TREA 193	CE157	Storage Bins Lines 11,12 Scrubber	
		TREA 224	CE147	Line 3 Waste Gas Scrubber	
018-Fabric Filter - Low Temp, T<180 Degrees F		TREA 89	CE142	S3 Bentonite Storage Baghouse	
		TREA 90	CE143	Limestone Receiving Baghouse	
		TREA 94	CE083	Line 3 Bentonite Blending Baghouse	
		TREA 97	CE093	S1 Bentonite Storage Baghouse	
		TREA 98	CE094	Line 2, 3 Bentonite Day Bin Baghouse	
		TREA 99	CE095	Agglomerators I & II Bentonite Unloading Baghouse	
		TREA 100	CE096	S2 Bentonite Storage Baghouse	
		TREA 101	CE097	Line 4 Bentonite Day Bin Baghouse	
		TREA 102	CE098	Line 4 Bentonite Blending Baghouse	
		TREA 110	CE107	Line 5 Bentonite Day Bin Baghouse	
		TREA 111	CE108	Line 5 Bentonite Blending Baghouse	
		TREA 115	CE001	Step I Coarse Crusher Baghouse	
		TREA 116	CE002	Step II Coarse Crusher Baghouse	
		TREA 117	CE003	Step III Coarse Crusher Baghouse	
		TREA 130	CE129	Line 7 Bentonite Day Bin Baghouse	
		TREA 135	CE118	S3 Bentonite Storage Baghouse	
		TREA 136	CE119	Line 6 Bentonite Day Bin Baghouse	
		TREA 137	CE120	Line 6 Bentonite Blending Baghouse	
		TREA 145	CE130	Line 7 Bentonite Blending Baghouse	
		TREA 171	CE144	Hill Wood Products Baghouse	
		TREA 194	CE158	Step I Tertiary Crusher Line 1 Baghouse	
		TREA 195	CE159	Step I Tertiary Crusher Line 2 Baghouse	
		TREA 196	CE160	Step I Tertiary Crusher Line 3 Baghouse	
		TREA 197	CE161	Step I Tertiary Crusher Line 4 Baghouse	
		TREA 198	CE162	Step I Tertiary Crusher Line 5 Baghouse	
		TREA 199	CE163	Step I Tertiary Crusher Line 6 Baghouse	
		TREA 200	CE164	Step I Tertiary Crusher Line 7 Baghouse	
		TREA 201	CE165	Step I Tertiary Crusher Line 8 Baghouse	
		TREA 202	CE166	Step I Tertiary Crusher Line 9 Baghouse	
		TREA 203	CE167	Step I Tertiary Crusher Line 10 Baghouse	
		TREA 204	CE168	Step I Tertiary Crusher Line 11 Baghouse	
		TREA 205	CE169	Step I Tertiary Crusher Line 12 Baghouse	
		TREA 206	CE170	Step I Tertiary Crusher Line 13 Baghouse	
		TREA 207	CE171	Step I Tertiary Crusher Line 14 Baghouse	
		TREA 208	CE172	Step I Tertiary Crusher Line 15 Baghouse	
		TREA 209	CE173	Step I Tertiary Crusher Line 16 Baghouse	
		TREA 210	CE174	Conveyor Transfer 004-005 Baghouse	
		TREA 211	CE175	Agglomerators I & II Bentonite Unloading Baghouse	
		TREA 212	CE187	Step I & II Conveyor transfer 010-01 Baghouse	
		TREA 213	CE198	Step I conveyor 005-006 Baghouse	
		TREA 214	CE229	Limestone Conveyor Transfer Baghouse	
		TREA 215	CE230	Step III conveyor 005-006 Baghouse	
		TREA 216	CE233	Step III Storage Bin Lines 17, 18 Baghouse	
		TREA 217	Null	Storage Bin L15,16 Cartridge Filter	
		TREA 218	CE235	Step III Storage Bin Lines 13, 14 Baghouse	

SI List

AI ID (Name): 2476 (US Steel Corp - MinnTac)
Activity: IND20070001

SI Category	SI Type	Subject Item ID	Delta Designation	Description	
Treatment	018-Fabric Filter - Low Temp, T<180 Degrees F	TREA 219	CE191	Step III Conveyor Transfer 005 Feed Baghouse	
		TREA 220	CE192	Step III Conveyor Transfer 005 Discharge Baghouse	
		TREA 221	Null	Step I Conveyor Transfer 008 to 009 Baghouse	
		TREA 222	Null	Step I Conveyor Transfer 003 to 004 Baghouse	
		TREA 223	Null	Step I Secondary Crusher Line 1 Baghouse	
		TREA 226	Null	Secondary Crusher L2 Cartridge Filter	
		TREA 227	Null	Secondary Crusher L3 Cartridge Filter	
		TREA 228	Null	Secondary Crusher L4 Cartridge Filter	
		TREA 229	Null	Conveyor Transfer 009-020 Cartridge Filter	
		TREA 230	Null	Conveyor Transfer 008-009 Cartridge Filter	
		TREA 231	Null	Step I Coarse Crusher Pan Feeder Cartridge Filter	
		TREA 232	Null	Step II Coarse Crusher Pan Feeder Cartridge Filter	
		TREA 233	Null	Conveyor Transfer 005-006 Cartridge Filter	
		TREA 234	Null	Conveyor Transfer 001 to 070 Cartridge Filter	
		TREA 235	Null	Conveyor Transfer 005-006 Cartridge Filter	
		TREA 236	Null	Surge Pile/Reclaim 011-01 Cartridge Filter	
		TREA 237	Null	Conveyor Transfer 008-009 Cartridge Filter	
		TREA 238	Null	Secondary Crusher L6 Cartridge Filter	
		TREA 239	Null	Secondary Crusher L8 Cartridge Filter	
		TREA 240	Null	Secondary Crusher L7 Cartridge Filter	
		TREA 241	Null	Secondary Crusher L9 Cartridge Filter	
		TREA 242	Null	Secondary Crusher L10 Cartridge Filter	
		TREA 243	Null	Step III Coarse Crusher Pan Feeders Cartridge Filter	
		TREA 244	Null	Conveyor Transfer 011-02/03 Cartridge Filter	
		TREA 245	Null	Secondary Crusher L11 Cartridge Filter	
		TREA 246	Null	Secondary Crusher L12 Cartridge Filter	
		TREA 247	Null	Secondary Crusher L13 Cartridge Filter	
		TREA 248	Null	Secondary Crusher L14 Cartridge Filter	
		TREA 249	Null	Secondary Crusher L15 Cartridge Filter	
		TREA 250	Null	Tertiary Crusher L18 Cartridge Filter	
		TREA 251	Null	Tertiary Crusher L21 Cartridge Filter	
		TREA 252	Null	Tertiary Crusher L19 Cartridge Filter	
		TREA 253	Null	Tertiary Crusher L20 Cartridge Filter	
		TREA 254	Null	Tertiary Crusher L22 Cartridge Filter	
		TREA 255	Null	Tertiary Crusher L23 Cartridge Filter	
		TREA 256	Null	Tertiary Crusher L28 Cartridge Filter	
		TREA 257	Null	Tertiary Crusher L24 Cartridge Filter	
		TREA 258	Null	Tertiary Crusher L25 Cartridge Filter	
		TREA 259	Null	Tertiary Crusher L26 Cartridge Filter	
		TREA 260	Null	Tertiary Crusher L27 Cartridge Filter	
		TREA 261	Null	Conveyor Transfer 009-020 Cartridge Filter	
		TREA 262	Null	Conveyor Transfer 003-004 Cartridge Filter	
		TREA 264	Null	Conveyor Transfer 003 Cartridge Filter	
		TREA 265	Null	Conveyor Transfer 001-070 Bin Cartridge Filter	
		TREA 266	Null	Step I Basement Belts Cartridge Filter	
		TREA 267	Null	Secondary Crusher L5 Cartridge Filter	
		TREA 269	Null	Step III Tertiary Storage 006-080 Bins Cartridge Filter	
	053-Venturi Scrubber	TREA 225	Null	L6 Steam Collection Venturi Scrubber	
	099-Other	TREA 268	Null	Road dust suppression	

Insignificant Activities

AI ID (Name): 2476 (US Steel Corp - MinnTac)
Activity: IND20070001

SI Category	SI Type	Status Description	Sub Attribute Description	
Activity	Insignificant Air Emissions Activity	Active / Existing	Minn. R. 7007.1300, subp. 3(B)(1)	
			Minn. R. 7007.1300, subp. 3(D)	
			Minn. R. 7007.1300, subp. 3(E)	
			Minn. R. 7007.1300, subp. 3(F)	
			Minn. R. 7007.1300, subp. 3(G)	
			Minn. R. 7007.1300, subp. 4	

Emission Units 1

AI ID (Name): 2476 (US Steel Corp - MinnTac)
Activity: IND20070001

SI Type	Subject Item ID	Delta Designation	Description	Manufacturer	Model	Max Design Capacity	Max Design Capacity Units	Material	Firing Method	Subject to CSAPR?	Electric Generating Capacity (MW)	Construction Start Date	Operation Start Date	Modification Date	
Boiler	EQUI 196	EU001	SI 104 MMBtu Heating Boiler	Bros Inc	Custom (465-30)	104	million British thermal units/hours	Heat	Not coal burning	N	Null	12/31/1967	10/2/1969	Null	
	EQUI 197	EU002	SI 104 MMBtu Heating Boiler	Bros Inc	Custom (465-30)	104	million British thermal units/hours	Heat	Not coal burning	N	Null	12/31/1967	10/2/1969	Null	
	EQUI 198	EU003	SII 125 MMBtu Heating Boiler	Riley Stoker Corp	Custom (3700)	125	million British thermal units/hours	Heat	Not coal burning	N	Null	1/1/1972	7/1/1972	Null	
	EQUI 199	EU004	SIII 153 MMBtu Heating Boiler	International Boiler Works	TJW-100	153	million British thermal units/hours	Heat	Not coal burning	N	Null	1/1/1978	10/9/1978	Null	
	EQUI 200	EU005	SIII 153 MMBtu Heating Boiler	International Boiler Works	TJW-100	153	million British thermal units/hours	Heat	Not coal burning	N	Null	1/1/1978	10/9/1978	Null	
	EQUI 201	EU010	24.6 MMBtu Boiler	Deltak Corp	Diamond 20	24.6	million British thermal units/hours	Heat	Not coal burning	N	Null	1/1/1978	10/9/1978	Null	
	EQUI 202	EU011	24.6 MMBtu Boiler	Deltak Corp	Diamond 20	24.6	million British thermal units/hours	Heat	Not coal burning	N	Null	1/1/1978	10/9/1978	Null	
Kiln	EQUI 3	EU315	L6 Rotary Kiln	Allis Chalmers	Custom	183.12	million British thermal units/hours	Heat	Not coal burning	Null	Null	1/1/1978	10/9/1978	Null	
	EQUI 146	EU225	L3 Rotary Kiln	Allis Chalmers	Custom	140.4	million British thermal units/hours	Heat	Not coal burning	Null	Null	12/31/1967	10/2/1969	Null	
	EQUI 179	EU334	L7 Rotary Kiln	Allis Chalmers	Custom	183.12	million British thermal units/hours	Heat	Not coal burning	Null	Null	1/1/1978	10/9/1978	Null	
	EQUI 279	EU261	L4 Rotary Kiln	Allis Chalmers	Custom	183.12	million British thermal units/hours	Heat	Not coal burning	Null	Null	1/1/1972	7/1/1972	Null	
	EQUI 280	EU282	L5 Rotary Kiln	Allis Chalmers	Custom	183.12	million British thermal units/hours	Heat	Not coal burning	Null	Null	1/1/1972	7/1/1972	Null	
Other Combustion	EQUI 712	Null	Burnout Oven	Bayco	BB-208	0.8	million British thermal units/hours	Heat	Not coal burning	Null	Null	1/1/1972	12/31/1972	Null	

Emission Units 2

AI ID (Name): 2476 (US Steel Corp - MinnTac)
Activity: IND20070001

SI Type	Subject Item ID	Delta Designation	Description	Manufacturer	Model	Max Design Capacity	Max Design Capacity Units	Material	Engine Use	Firing Method	Engine Displacement	Engine Displacement Units	Construction Start Date	Operation Start Date	Modification Date	
Reciprocating IC Engine	EQUI 274	EU216	Diesel Generator	Waukesha	L5788DU	625	kilowatts/hours	Energy	Emergency/blacks...	CI	7,900	total cubic centimeters	1/9/1967	10/2/1969	Null	
	EQUI 671	EU404	Diesel Generator	Caterpillar	LEHF0479	625	kilowatts/hours	Energy	Emergency/blacks...	CI	15,200	total cubic centimeters	12/5/2016	2/6/2017	Null	
	EQUI 672	EU413	New Emergency Generator	Generac - Inveco/FPT	SD050	79	brake horsepower/each	Energy	Emergency/blacks...	CI	4.5	liters per cylinder	7/1/2022	9/1/2022	Null	
	EQUI 688	Null	Utility Plant Diesel Generator S1	Caterpillar	D343	241	horsepower/each	Energy	Emergency/blacks...	CI	14,633.6	total cubic centimeters	12/31/1967	10/2/1969	Null	
	EQUI 689	Null	Utility Plant Diesel Generator S3	Cuummins	KTA2300GC	1,135	horsepower/each	Energy	Emergency/blacks...	CI	18,599.32	total cubic centimeters	1/1/1978	10/9/1978	Null	
	EQUI 690	Null	Utility Plant Diesel Pump	Detroit	892	430	horsepower/each	Energy	Emergency/blacks...	CI	12,060.9	total cubic centimeters	10/2/1969	1/1/1972	Null	
	EQUI 691	Null	Diesel Generator	Kohler	500R0Z71	450	kilowatts/hours	Energy	Emergency/blacks...	CI	28,021.88	total cubic centimeters	10/2/1969	1/1/1972	Null	
	EQUI 692	Null	Diesel Generator	Waukesha	L5100DU	450	kilowatts/hours	Energy	Emergency/blacks...	CI	55,863.5	total cubic centimeters	10/2/1969	1/1/1972	Null	
	EQUI 693	Null	Diesel Generator	Waukesha	L5100DU	625	kilowatts/hours	Energy	Emergency/blacks...	CI	63,237.68	total cubic centimeters	10/2/1969	1/1/1972	Null	
	EQUI 694	Null	Diesel Generator	Caterpillar	D379	400	kilowatts/hours	Energy	Emergency/blacks...	CI	32,184.19	total cubic centimeters	1/1/1978	10/9/1978	Null	
	EQUI 695	Null	Diesel Generator	Caterpillar	D379	400	kilowatts/hours	Energy	Emergency/blacks...	CI	32,184.19	total cubic centimeters	1/1/1978	10/9/1978	Null	
	EQUI 696	Null	Diesel Generator	Cummins	KTA2300GC1	700	kilowatts/hours	Energy	Emergency/blacks...	CI	37,690.25	total cubic centimeters	10/2/1969	1/1/1972	Null	
	EQUI 703	Null	Fire Hall Emergency Generator	Caterpillar	D200 GC	268	brake horsepower/each	Power	Emergency/blacks...	CI	7.01	liters per cylinder	6/1/2023	4/1/2024	Null	
	EQUI 706	Null	Step II Agglomerator Emergency Generator	Caterpillar	C15	500	kilowatts/each	Electrical Energy	Emergency/blacks...	CI	15.2	liters per cylinder	9/1/2024	9/1/2024	Null	

Emission Units 3

AI ID (Name): 2476 (US Steel Corp - MinnTac)

Activity: IND20070001

SI Type	Subject Item ID	Delta Designation	Description	Manufacturer	Model	Max Design Capacity	Max Design Capacity Units	Material	Construction Start Date	Operation Start Date	Modification Date	
Blender	EQUI 31	EU273	L5 Bentonite Blending	Pekey	Custom	135	tons/hours	Bentonite	1/1/1972	7/1/1972	Null	
	EQUI 32	EU274	L5 Bentonite Blending	Pekey	Custom	135	tons/hours	Bentonite	1/1/1972	7/1/1972	Null	
	EQUI 33	EU275	L5 Bentonite Blending	Pekey	Custom	135	tons/hours	Bentonite	1/1/1972	7/1/1972	Null	
	EQUI 34	EU276	L5 Bentonite Blending	Pekey	Custom	135	tons/hours	Bentonite	1/1/1972	7/1/1972	Null	
	EQUI 35	EU277	L5 Bentonite Blending	Pekey	Custom	135	tons/hours	Bentonite	1/1/1972	7/1/1972	Null	
	EQUI 93	EU306	L6 Bentonite Blending	U. S. Steel	Custom	135	tons/hours	Bentonite	1/1/1978	10/9/1978	Null	
	EQUI 94	EU307	L6 Bentonite Blending	Pekey	Custom	135	tons/hours	Bentonite	1/1/1978	10/9/1978	Null	
	EQUI 95	EU309	L6 Bentonite Blending	Pekey	Custom	135	tons/hours	Bentonite	1/1/1978	10/9/1978	Null	
	EQUI 101	EU325	L7 Bentonite Blending	U. S. Steel	Custom	135	tons/hours	Bentonite	1/1/1978	10/9/1978	Null	
	EQUI 102	EU327	L7 Bentonite Blending	Pekey	Custom	135	tons/hours	Bentonite	1/1/1978	10/9/1978	Null	
	EQUI 103	EU328	L7 Bentonite Blending	Pekey	Custom	135	tons/hours	Bentonite	1/1/1978	10/9/1978	Null	
	EQUI 143	EU217	L3 Bentonite Blending	U. S. Steel	Custom	97	tons/hours	Bentonite	12/31/1967	10/2/1969	Null	
	EQUI 144	EU220	L3 Bentonite Blending	U. S. Steel	Custom	97	tons/hours	Bentonite	12/31/1967	10/2/1969	Null	
	EQUI 157	EU252	L4 Bentonite Blending	Pekey	Custom	135	tons/hours	Bentonite	1/1/1972	7/1/1972	Null	
	EQUI 158	EU254	L4 Bentonite Blending	Pekey	Custom	135	tons/hours	Bentonite	1/1/1972	7/1/1972	Null	
	EQUI 168	EU308	L6 Bentonite Blending	Pekey	Custom	135	tons/hours	Bentonite	1/1/1978	10/9/1978	Null	
	EQUI 176	EU326	L7 Bentonite Blending	Pekey	Custom	135	tons/hours	Bentonite	1/1/1978	10/9/1978	Null	
	EQUI 177	EU329	L7 Bentonite Blending	Pekey	Custom	135	tons/hours	Bentonite	1/1/1978	10/9/1978	Null	
	EQUI 269	EU310	L6 Bentonite Blending	Pekey	Custom	135	tons/hours	Bentonite	1/1/1978	10/9/1978	Null	
	EQUI 345	EU218	L3 Bentonite Blending	U. S. Steel	Custom	97	tons/hours	Bentonite	12/31/1967	10/2/1969	Null	
	EQUI 346	EU219	L3 Bentonite Blending	U. S. Steel	Custom	97	tons/hours	Bentonite	12/31/1967	10/2/1969	Null	
	EQUI 365	EU253	L4 Bentonite Blending	Pekey	Custom	135	tons/hours	Bentonite	1/1/1972	7/1/1972	Null	

Emission Units 3

AI ID (Name): 2476 (US Steel Corp - MinnTac)

Activity: IND20070001

SI Type Blender	Subject Item ID	Delta Designation	Description	Manufacturer	Model	Max Design Capacity	Max Design Capacity Units	Material	Construction Start Date	Operation Start Date	Modification Date	
	EQUI 366	EU255	L4 Bentonite Blending	Pekey	Custom	135	tons/hours	Bentonite	1/1/1972	7/1/1972	Null	
	EQUI 367	EU256	L4 Bentonite Blending	Pekey	custom	135	tons/hours	Bentonite	1/1/1972	7/1/1972	Null	
Cleaning Equipment	EQUI 676	Null	Clean-up Materials	U.S Steel	Custom	13,300	gallons/years	Solvents	12/31/1967	12/31/1967	Null	
Conveyor	EQUI 6	EU099	Conveyor Transfer 008 to 009	U. S. Steel	Custom	4,166	tons/hours	Ore	1/1/1972	7/1/1972	Null	
	EQUI 7	EU101	Conveyor Transfer 008 to 009	U. S. Steel	Custom	1,860	tons/hours	Ore	1/1/1972	7/1/1972	Null	
	EQUI 8	EU104	Conveyor Transfer 008-009	U. S. Steel	Custom	3,720	tons/hours	Ore	1/1/1978	10/9/1978	Null	
	EQUI 11	EU111	Conveyor Transfer 001-070 Bin	U. S. Steel	Custom	5,580	tons/hours	Ore	1/1/1978	10/9/1978	Null	
	EQUI 12	EU114	Conveyor Transfer 003-004	U. S. Steel	Custom	4,712	tons/hours	Ore	1/1/1978	10/9/1978	Null	
	EQUI 36	EU278	L5 Grate Feed	Allis Chalmers	Custom	540	tons/hours	Pellet	1/1/1972	7/1/1972	Null	
	EQUI 37	EU279	L5 Grate Discharge	Allis Chalmers	Custom	540	tons/hours	Pellet	1/1/1972	1/1/1972	Null	
	EQUI 51	EU040	Conveyor Transfer 005-006	U. S. Steel	Custom	5,580	tons/hours	Ore	1/1/1967	10/2/1969	Null	
	EQUI 52	EU049	Conveyor Transfer 005 Feed	U. S. Steel	Custom	2,480	tons/hours	Ore	1/1/1982	7/1/1982	Null	
	EQUI 53	EU050	Conveyor Transfer 005 Discharge	U. S. Steel	Custom	2,480	tons/hours	Ore	1/1/1982	7/1/1982	Null	
	EQUI 77	EU037	Conveyor Transfer 010-01	U. S. Steel	Custom	5,524	tons/hours	Ore	1/1/1972	7/1/1972	Null	
	EQUI 78	EU038	Conveyor Transfer 010-01	U. S. Steel	Custom	5,524	tons/hours	Ore	1/1/1972	7/1/1972	Null	
	EQUI 79	EU264	L4 Conveyor Transfer Feeder	U. S. Steel	Custom	540	tons/hours	Pellet	1/1/1972	7/1/1972	Null	
	EQUI 81	EU287	L5 Conveyor Transfer 041/046 to 042 Belts	U. S. Steel	Custom	540	tons/hours	Pellet	1/1/1972	7/1/1972	Null	
	EQUI 82	EU288	L5 Conveyor Transfer 041/046 to 042 Belts	U. S. Steel	Custom	540	tons/hours	Pellet	1/1/1972	7/1/1972	Null	
	EQUI 87	EU296	S3 Conveyor Transfer	U. S. Steel	Custom	1,080	tons/hours	Pellet	1/1/1978	10/9/1978	Null	
	EQUI 96	EU311	L6 Grate Feed	Allis Chalmers	Custom	540	tons/hours	Pellet	1/1/1978	10/9/1978	Null	
	EQUI 97	EU312	L6 Grate Discharge	Allis Chalmers	Custom	540	tons/hours	Pellet	1/1/1978	10/9/1978	Null	
	EQUI 104	EU330	L7 Grate Feed	Allis Chalmers	Custom	540	tons/hours	Pellet	1/1/1978	10/9/1978	Null	

Emission Units 3

AI ID (Name): 2476 (US Steel Corp - MinnTac)

Activity: IND20070001

SI Type	Subject Item ID	Delta Designation	Description	Manufacturer	Model	Max Design Capacity	Max Design Capacity Units	Material	Construction Start Date	Operation Start Date	Modification Date	
Conveyor	EQUI 109	EU342	Step III 042 Conveyor Vent	U. S. Steel	Custom	11,821	cubic feet/minutes	Pellet	1/1/1979	1/1/1979	Null	
	EQUI 110	EU343	Step III 043 Conveyor Vent	U. S. Steel	Custom	11,821	cubic feet/minutes	Pellet	1/1/1979	1/1/1979	Null	
	EQUI 111	EU345	Step III 044 Conveyor Vent	U. S. Steel	Custom	11,821	cubic feet/minutes	Pellet	1/1/1979	1/1/1979	Null	
	EQUI 112	EU347	Step III 044 Conveyor Vent	U. S. Steel	Custom	11,821	cubic feet/minutes	Pellet	1/1/1979	1/1/1979	Null	
	EQUI 113	EU349	Step III 044 Conveyor Vent	U. S. Steel	Custom	11,821	cubic feet/minutes	Pellet	1/1/1979	1/1/1979	Null	
	EQUI 114	EU350	Step III 044 Conveyor Vent	U. S. Steel	Custom	11,821	cubic feet/minutes	Pellet	1/1/1979	1/1/1979	Null	
	EQUI 115	EU352	Step III 044 Conveyor Vent	U. S. Steel	Custom	11,821	cubic feet/minutes	Pellet	1/1/1979	1/1/1979	Null	
	EQUI 116	EU354	Step III 044 Conveyor Vent	U. S. Steel	Custom	11,821	cubic feet/minutes	Pellet	1/1/1979	1/1/1979	Null	
	EQUI 117	EU356	Step III 044 Conveyor Vent	U. S. Steel	Custom	11,821	cubic feet/minutes	Pellet	1/1/1979	1/1/1979	Null	
	EQUI 118	EU358	Step III 044 Conveyor Vent	U. S. Steel	Custom	18,821	cubic feet/minutes	Pellet	1/1/1979	1/1/1979	Null	
	EQUI 119	EU318	L6 Conveyor Transfer	U.S Steel	Custom	540	tons/hours	Pellet	1/1/1978	10/9/1978	Null	
	EQUI 120	EU319	L6 Conveyor Transfer	U.S Steel	Custom	540	tons/hours	Pellet	1/1/1978	10/9/1978	Null	
	EQUI 122	EU337	L7 Conveyor Transfer	U. S. Steel	Custom	540	tons/hours	Pellet	1/1/1978	10/9/1978	Null	
	EQUI 123	EU338	L7 Conveyor Transfer	U. S. Steel	Custom	540	tons/hours	Pellet	1/1/1978	10/9/1978	Null	
	EQUI 148	EU230	L3 041/046 Conveyor Belt Vent	U. S. Steel	Custom	290	tons/hours	Pellet	12/31/1967	10/2/1969	Null	
	EQUI 149	EU232	S1 Conveyor Transfer 042-043	U. S. Steel	Custom	290	tons/hours	Pellet	12/31/1967	10/2/1969	Null	
	EQUI 150	EU235	L3 Conveyor Transfer 041-042	U. S. Steel	Custom	290	tons/hours	Pellet	12/31/1967	10/2/1969	Null	
	EQUI 159	EU257	L4 Grate Feed	Allis Chalmers	Custom	540	tons/hours	Pellet	1/1/1972	7/1/1972	Null	
	EQUI 164	EU295	S3 Conveyor Transfer	U. S. Steel	Custom	1,080	tons/hours	Pellet	1/1/1978	10/9/1978	Null	
	EQUI 173	EU190	Conveyor Transfer 009-020	U. S. Steel	Custom	3,720	tons/hours	Ore	1/1/1978	10/9/1978	Null	
	EQUI 178	EU331	L7 Grate Discharge	Allis Chalmers	Custom	540	tons/hours	Pellet	1/1/1978	10/9/1978	Null	
	EQUI 180	EU341	Step III 042 Conveyor Vent	U. S. Steel	Custom	11,821	cubic feet/minutes	Pellet	1/1/1979	1/1/1979	Null	

Emission Units 3

AI ID (Name): 2476 (US Steel Corp - MinnTac)

Activity: IND20070001

SI Type	Subject Item ID	Delta Designation	Description	Manufacturer	Model	Max Design Capacity	Max Design Capacity Units	Material	Construction Start Date	Operation Start Date	Modification Date	
Conveyor	EQUI 181	EU344	Step III 043 Conveyor Vent	U. S. Steel	Custom	11,821	cubic feet/minutes	Pellet	1/1/1979	1/1/1979	Null	
	EQUI 182	EU346	Step III 044 Conveyor Vent	U. S. Steel	Custom	11,821	cubic feet/minutes	Pellet	1/1/1979	1/1/1979	Null	
	EQUI 183	EU348	Step III 044 Conveyor Vent	U. S. Steel	Custom	11,821	cubic feet/minutes	Pellet	1/1/1979	1/1/1979	Null	
	EQUI 184	EU351	Step III 044 Conveyor Vent	U. S. Steel	Custom	11,821	cubic feet/minutes	Pellet	1/1/1979	1/1/1979	Null	
	EQUI 185	EU353	Step III 044 Conveyor Vent	U. S. Steel	Custom	11,821	cubic feet/minutes	Pellet	1/1/1979	1/1/1979	Null	
	EQUI 186	EU355	Step III 044 Conveyor Vent	U. S. Steel	Custom	11,821	cubic feet/minutes	Pellet	1/1/1979	1/1/1979	Null	
	EQUI 187	EU357	Step III 044 Conveyor Vent	U. S. Steel	Custom	11,821	cubic feet/minutes	Pellet	1/1/1979	1/1/1979	Null	
	EQUI 240	EU191	Conveyor Transfer 009-020	U. S. Steel	Custom	3,720	tons/hours	Ore	1/1/1978	10/9/1978	Null	
	EQUI 241	EU192	Conveyor Transfer 009-020	U. S. Steel	Custom	3,720	tons/hours	Ore	1/1/1978	10/9/1978	Null	
	EQUI 272	EU285	L5 Conveyor Transfer Feeder (B4 L5 hygiene)	U. S. Steel	Custom	540	tons/hours	Pellet	1/1/1972	7/1/1972	Null	
	EQUI 275	EU394	Limestone Dump Pocket	U. S. Steel	Custom	3,808	tons/hours	Limestone	3/1/1997	12/1/1997	Null	
	EQUI 284	EU105	Conveyor Transfer 008-009	U. S. Steel	Custom	3,720	tons/hours	Ore	1/1/1978	10/9/1978	Null	
	EQUI 288	EU112	Conveyor Transfer 003	U. S. Steel	Custom	3,100	tons/hours	Ore	1/1/1978	10/9/1978	Null	
	EQUI 289	EU113	Conveyor Transfer 003	U. S. Steel	Custom	3,100	tons/hours	Ore	1/1/1978	10/9/1978	Null	
	EQUI 290	EU115	Conveyor Transfer 003-004	U. S. Steel	Custom	4,712	tons/hours	Ore	1/1/1978	10/9/1978	Null	
	EQUI 309	EU140	Conveyor Transfer 005-006	U. S. Steel	Custom	4,712	tons/hours	Ore	1/1/1978	10/9/1978	Null	
	EQUI 310	EU141	Conveyor Transfer 005-006	U. S. Steel	Custom	4,712	tons/hours	Ore	1/1/1978	10/9/1978	Null	
	EQUI 313	EU144	Conveyor Transfer 009-020	U. S. Steel	Custom	4,340	tons/hours	Ore	12/31/1967	10/2/1969	Null	
	EQUI 314	EU145	Conveyor Transfer 009-020	U. S. Steel	Custom	5,952	tons/hours	Ore	12/31/1967	10/2/1969	Null	
	EQUI 315	EU267	L4 Conveyor Transfer 041/046 to 042 Belts	U. S. Steel	Custom	540	tons/hours	Pellet	1/1/1972	7/1/1972	Null	
	EQUI 318	EU034	Conveyor Transfer 005-006	U. S. Steel	Custom	5,160	tons/hours	Ore	12/31/1967	10/2/1969	Null	
	EQUI 319	EU036	Conveyor Transfer 010-01	U. S. Steel	Custom	1,488	tons/hours	Ore	1/1/1972	7/1/1972	Null	

Emission Units 3

AI ID (Name): 2476 (US Steel Corp - MinnTac)

Activity: IND20070001

SI Type	Subject Item ID	Delta Designation	Description	Manufacturer	Model	Max Design Capacity	Max Design Capacity Units	Material	Construction Start Date	Operation Start Date	Modification Date	
Conveyor	EQUI 320	EU039	Conveyor Transfer 010-01	U. S. Steel	Custom	5,580	tons/hours	Ore	1/1/1972	7/1/1972	Null	
	EQUI 321	EU041	Conveyor Transfer 004-005	U. S. Steel	Custom	2,728	tons/hours	Ore	1/1/1978	10/9/1978	Null	
	EQUI 322	EU043	Conveyor Transfer 004-005	U. S. Steel	Custom	4,712	tons/hours	Ore	1/1/1978	10/9/1978	Null	
	EQUI 323	EU045	Conveyor Transfer 004-005	U. S. Steel	Custom	4,712	tons/hours	Ore	1/1/1978	10/9/1978	Null	
	EQUI 324	EU047	Conveyor Transfer 011-02/03	U. S. Steel	Custom	4,960	tons/hours	Ore	1/1/1978	10/9/1978	Null	
	EQUI 326	EU052	Conveyor Transfer 008 to 009	U. S. Steel	Custom	4,340	tons/hours	Ore	12/31/1967	10/2/1969	Null	
	EQUI 330	EU059	Conveyor Transfer 005 to 006	U. S. Steel	Custom	4,960	tons/hours	Ore	12/31/1967	10/2/1969	Null	
	EQUI 331	EU061	Conveyor Transfer 003 to 004	U. S. Steel	Custom	5,524	tons/hours	Ore	12/31/1967	10/2/1969	Null	
	EQUI 332	EU063	Conveyor Transfer 003 to 004	U. S. Steel	Custom	5,524	tons/hours	Ore	12/31/1967	10/2/1969	Null	
	EQUI 333	EU064	Conveyor Transfer 003 to 004	U. S. Steel	Custom	5,524	tons/hours	Ore	12/31/1967	10/2/1969	Null	
	EQUI 342	EU098	Conveyor Transfer 008 to 009	U. S. Steel	Custom	1,860	tons/hours	Ore	1/1/1972	7/1/1972	Null	
	EQUI 343	EU100	Conveyor Transfer 008 to 009	U. S. Steel	Custom	4,166	tons/hours	Ore	1/1/1972	7/1/1972	Null	
	EQUI 347	EU221	L3 Grate Feed	Allis Chalmers	Custom	290	tons/hours	Pellet	12/31/1967	10/2/1969	Null	
	EQUI 348	EU222	L3 Grate Discharge	Allis Chalmers	Custom	290	tons/hours	Pellet	12/31/1967	10/2/1969	Null	
	EQUI 352	EU231	L3 041/046 Conveyor Belt Vent	U. S. Steel	Custom	290	tons/hours	Pellet	12/31/1967	10/2/1969	Null	
	EQUI 353	EU233	S1 Conveyor Transfer 042-043	U. S. Steel	Custom	290	tons/hours	Pellet	12/31/1967	10/2/1969	Null	
	EQUI 354	EU234	L3 Conveyor Transfer 041-042	U. S. Steel	Custom	290	tons/hours	Pellet	12/31/1967	10/2/1969	Null	
	EQUI 368	EU258	L4 Grate Discharge	Allis Chalmers	Custom	540	tons/hours	Pellet	1/1/1972	7/1/1972	Null	
	EQUI 372	EU266	L4 Conveyor Transfer 041/046 to 042 Belts	U. S. Steel	Custom	540	tons/hours	Pellet	1/1/1972	7/1/1972	Null	
	EQUI 377	EU035	Conveyor Transfer 005-006	U. S. Steel	Custom	5,160	tons/hours	Ore	12/31/1967	10/2/1969	Null	
	EQUI 378	EU042	Conveyor Transfer 004-005	U. S. Steel	Custom	4,712	tons/hours	Ore	1/1/1978	10/9/1978	Null	
	EQUI 379	EU044	Conveyor Transfer 004-005	U. S. Steel	Custom	3,720	tons/hours	Ore	1/1/1978	10/9/1978	Null	

Emission Units 3

AI ID (Name): 2476 (US Steel Corp - MinnTac)

Activity: IND20070001

SI Type	Subject Item ID	Delta Designation	Description	Manufacturer	Model	Max Design Capacity	Max Design Capacity Units	Material	Construction Start Date	Operation Start Date	Modification Date	
Conveyor	EQUI 380	EU046	Conveyor Transfer 004-005	U. S. Steel	Custom	4,712	tons/hours	Ore	1/1/1978	10/9/1978	Null	
	EQUI 381	EU053	Conveyor Transfer 008 to 009	U. S. Steel	Custom	2,976	tons/hours	Ore	12/31/1967	10/2/1969	Null	
	EQUI 383	EU058	Conveyor Transfer 005 to 006	U. S. Steel	Custom	5,580	tons/hours	Ore	12/31/1967	10/2/1969	Null	
	EQUI 384	EU060	Conveyor Transfer 005 to 006	U. S. Steel	Custom	4,960	tons/hours	Ore	12/31/1967	10/2/1969	Null	
	EQUI 385	EU062	Conveyor Transfer 003 to 004	U. S. Steel	Custom	5,524	tons/hours	Ore	12/31/1967	10/2/1969	Null	
	EQUI 393	EU146	Conveyor Transfer 009-020	U. S. Steel	Custom	4,340	tons/hours	Ore	12/31/1980	12/31/1980	Null	
	EQUI 394	EU147	Conveyor Transfer 009-020	U. S. Steel	Custom	4,340	tons/hours	Ore	12/31/1978	12/31/1978	Null	
	EQUI 395	EU193	Conveyor Transfer 009-020	U. S. Steel	Custom	3,720	tons/hours	Ore	1/1/1980	10/9/1978	Null	
	EQUI 678	Null	Conveyor Transfer HPGR	Weir	Custom	616	tons/hours	Ore	7/15/2018	8/15/2019	Null	
	EQUI 679	Null	Conveyor Transfer HPGR	Weir	Custom	778	tons/hours	Ore	7/15/2018	8/15/2019	Null	
	EQUI 680	Null	Conveyor Transfer HPGR	Weir	Custom	1,394	tons/hours	Ore	7/15/2018	8/15/2019	Null	
	EQUI 681	Null	Conveyor Transfer HPGR	Weir	Custom	1,394	tons/hours	Ore	7/15/2018	8/15/2019	Null	
	EQUI 682	Null	HPGR Grinder	Weir	Custom	1,394	tons/hours	Ore	7/15/2018	8/15/2019	Null	
	EQUI 683	Null	Conveyor Transfer HPGR	Weir	Custom	1,394	tons/hours	Ore	7/15/2018	8/15/2019	Null	
	EQUI 685	Null	Coal Day Bin/Conveyor Transfer	U. S. Steel	Custom	34	tons/hours	Coal	1/1/1978	10/9/1979	Null	
	EQUI 697	Null	Conveyor Transfer	U.S. Steel	Custom	1,250	tons/hours	Pellet	9/30/2022	TBD	Null	
	EQUI 698	Null	Conveyor Transfer	U.S. Steel	Custom	1,250	tons/hours	Pellet	9/30/2022	TBD	Null	
	EQUI 699	Null	Conveyor Transfer	U.S. Steel	Custom	1,250	tons/hours	Pellet	9/30/2022	TBD	Null	
	EQUI 700	Null	Conveyor Transfer	U.S. Steel	Custom	1,250	tons/hours	Pellet	9/30/2022	TBD	Null	
	EQUI 701	Null	Conveyor Transfer	U.S. Steel	Custom	1,250	tons/hours	Pellet	9/30/2022	TBD	Null	
	EQUI 702	Null	Conveyor Transfer	U.S. Steel	Custom	1,250	tons/hours	Pellet	9/30/2022	TBD	Null	
Cooler	EQUI 41	EU284	L5 Pellet Cooler Vent Stack	Allis Chalmers	Custom	540	tons/hours	Pellet	1/1/1972	7/1/1972	Null	

Emission Units 3

AI ID (Name): 2476 (US Steel Corp - MinnTac)
Activity: IND20070001

SI Type	Subject Item ID	Delta Designation	Description	Manufacturer	Model	Max Design Capacity	Max Design Capacity Units	Material	Construction Start Date	Operation Start Date	Modification Date	
Cooler	EQUI 42	EU286	L5 Cooler Discharge / Fines Conveyor	Allis Chalmers	Custom	540	tons/hours	Pellet	1/1/1972	7/1/1972	Null	
	EQUI 147	EU228	L3 Cooler Discharge	Allis Chalmers	Custom	290	tons/hours	Pellet	12/31/1967	10/2/1969	Null	
	EQUI 267	EU397	L6 Pellet Cooler Vent Stack	U. S. Steel	Custom	540	tons/hours	Pellet	1/1/1978	10/9/1978	Null	
	EQUI 268	EU398	L7 Pellet Cooler Vent Stack	U. S. Steel	Custom	540	tons/hours	Pellet	1/1/1978	10/9/1978	Null	
	EQUI 350	EU227	L3 Cooler Vent Stack	Allis Chalmers	Custom	290	tons/hours	Pellet	12/31/1967	10/2/1969	Null	
	EQUI 370	EU263	L4 Pellet Cooler Vent Stack	Allis Chalmers	Custom	540	tons/hours	Pellet	1/1/1972	7/1/1972	Null	
	EQUI 371	EU265	L4 Cooler Discharge / Fines Conveyor	Allis Chalmers	Custom	540	tons/hours	Pellet	1/1/1972	7/1/1972	Null	
Crusher	EQUI 5	EU097	Secondary Crusher L10	Symons Nordborg	7' XHD	1,736	tons/hours	Ore	1/1/1972	7/1/1972	Null	
	EQUI 9	EU106	Secondary Crusher L11	Symons Nordborg	7' XHD	1,736	tons/hours	Ore	1/1/1978	10/9/1978	Null	
	EQUI 10	EU109	Secondary Crusher L14	Symons Nordborg	7' XHD	1,736	tons/hours	Ore	1/1/1978	10/9/1978	Null	
	EQUI 47	EU013	Step I Coarse Crusher	Traylor	Custom Dump Pocke	6,200	tons/hours	Ore	1/1/1967	10/2/1969	Null	
	EQUI 48	EU017	Step III Coarse Crusher	Traylor	Custom Dump Pocke	4,960	tons/hours	Ore	1/1/1978	10/9/1978	Null	
	EQUI 55	EU075	Tertiary Crusher L7	Symons Nordborg	7' XHD	558	tons/hours	Ore	12/31/1972	7/1/1972	Null	
	EQUI 56	EU076	Tertiary Crusher L8	Symons Nordborg	7' XHD	558	tons/hours	Ore	12/31/1972	7/1/1972	Null	
	EQUI 57	EU077	Tertiary Crusher L9	Symons Nordborg	7' XHD	558	tons/hours	Ore	12/31/1972	7/1/1972	Null	
	EQUI 58	EU078	Tertiary Crusher L10	Symons Nordborg	7' XHD	558	tons/hours	Ore	12/31/1972	7/1/1972	Null	
	EQUI 59	EU079	Tertiary Crusher L11	Symons Nordborg	7' XHD	558	tons/hours	Ore	12/31/1972	7/1/1972	Null	
	EQUI 60	EU080	Tertiary Crusher L12	Symons Nordborg	7' XHD	558	tons/hours	Ore	12/31/1972	7/1/1972	Null	
	EQUI 61	EU081	Tertiary Crusher L13	Symons Nordborg	7' XHD	558	tons/hours	Ore	12/31/1972	7/1/1972	Null	
	EQUI 62	EU082	Tertiary Crusher L14	Symons Nordborg	7' XHD	558	tons/hours	Ore	12/31/1972	7/1/1972	Null	
	EQUI 63	EU083	Tertiary Crusher L15	Symons Nordborg	7' XHD	558	tons/hours	Ore	12/31/1972	7/1/1972	Null	
	EQUI 64	EU084	Tertiary Crusher L16	Symons Nordborg	7' XHD	558	tons/hours	Ore	12/31/1972	7/1/1972	Null	

Emission Units 3

AI ID (Name): 2476 (US Steel Corp - MinnTac)

Activity: IND20070001

SI Type	Subject Item ID	Delta Designation	Description	Manufacturer	Model	Max Design Capacity	Max Design Capacity Units	Material	Construction Start Date	Operation Start Date	Modification Date	
Crusher	EQUI 72	EU015	Step II Coarse Crusher	Traylor	Custom Dump Pocke	6,200	tons/hours	Ore	1/1/1972	7/1/1972	Null	
	EQUI 283	EU103	Secondary Crusher L5	Symons Nordborg	7' XHD	1,736	tons/hours	Ore	1/1/1976	7/1/1972	Null	
	EQUI 285	EU107	Secondary Crusher L12	Symons Nordborg	7' XHD	1,736	tons/hours	Ore	1/1/1978	10/9/1978	Null	
	EQUI 286	EU108	Secondary Crusher L13	Symons Nordborg	7' XHD	1,736	tons/hours	Ore	1/1/1978	10/9/1978	Null	
	EQUI 287	EU110	Secondary Crusher L15	Symons Nordborg	7' XHD	1,736	tons/hours	Ore	1/1/1978	10/9/1978	Null	
	EQUI 297	EU128	Tertiary Crusher L18	Symons Nordborg	7' XHD	558	tons/hours	Ore	1/1/1978	10/9/1978	Null	
	EQUI 298	EU129	Tertiary Crusher L19	Symons Nordborg	7' XHD	558	tons/hours	Ore	1/1/1978	10/9/1978	Null	
	EQUI 299	EU130	Tertiary Crusher L20	Symons Nordborg	7' XHD	558	tons/hours	Ore	1/1/1978	10/9/1978	Null	
	EQUI 300	EU131	Tertiary Crusher L21	Symons Nordborg	7' XHD	558	tons/hours	Ore	1/1/1978	10/9/1978	Null	
	EQUI 301	EU132	Tertiary Crusher L22	Symons Nordborg	7' XHD	558	tons/hours	Ore	1/1/1978	10/9/1978	Null	
	EQUI 303	EU134	Tertiary Crusher L24	Symons Nordborg	7' XHD	558	tons/hours	Ore	1/1/1978	10/9/1978	Null	
	EQUI 304	EU135	Tertiary Crusher L25	Symons Nordborg	7' HXD	558	tons/hours	Ore	1/1/1978	10/9/1978	Null	
	EQUI 305	EU136	Tertiary Crusher L26	Symons Nordborg	7' XHD	558	tons/hours	Ore	1/1/1978	10/9/1978	Null	
	EQUI 327	EU054	Secondary Crusher L1	Symons Nordborg	7' XHD	1,736	tons/hours	Ore	12/31/1967	10/2/1969	Null	
	EQUI 328	EU055	Secondary Crusher L2	Symons Nordborg	7' XHD	1,736	tons/hours	Ore	12/31/1967	10/2/1969	Null	
	EQUI 329	EU057	Secondary Crusher L4	Symons Nordborg	7' XHD	1,736	tons/hours	Ore	12/31/1967	10/2/1969	Null	
	EQUI 335	EU069	Tertiary Crusher L1	Symons Nordborg	7' XHD	558	tons/hours	Ore	12/31/1967	10/2/1969	Null	
	EQUI 336	EU071	Tertiary Crusher L3	Symons Nordborg	7' XHD	558	tons/hours	Ore	12/31/1967	10/2/1969	Null	
	EQUI 337	EU073	Tertiary Crusher L5	Symons Nordborg	7' XHD	558	tons/hours	Ore	12/31/1967	10/2/1969	Null	
	EQUI 338	EU074	Tertiary Crusher L6	Symons Nordborg	7' XHD	558	tons/hours	Ore	12/31/1967	10/2/1969	Null	
	EQUI 339	EU093	Secondary Crusher L6	Symons Nordborg	7' XHD	1,736	tons/hours	Ore	1/1/1972	7/1/1972	Null	
	EQUI 340	EU095	Secondary Crusher L8	Symons Nordborg	7' XHD	1,736	tons/hours	Ore	1/1/1972	7/1/1972	Null	

Emission Units 3

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SI Type	Subject Item ID	Delta Designation	Description	Manufacturer	Model	Max Design Capacity	Max Design Capacity Units	Material	Construction Start Date	Operation Start Date	Modification Date	
Crusher	EQUI 341	EU096	Secondary Crusher L9	Symons Nordborg	7' XHD	1,736	tons/hours	Ore	1/1/1972	7/1/1972	Null	
	EQUI 382	EU056	Secondary Crusher L3	Symons Nordborg	7' XHD	1,736	tons/hours	Ore	12/31/1967	10/2/1969	Null	
	EQUI 388	EU070	Tertiary Crusher L2	Symons Nordborg	7' XHD	558	tons/hours	Ore	12/31/1967	10/2/1969	Null	
	EQUI 389	EU072	Tertiary Crusher L4	Symons Nordborg	7' XHD	558	tons/hours	Ore	12/31/1967	10/2/1969	Null	
	EQUI 390	EU094	Secondary Crusher L7	Symons Nordborg	7' XHD	1,736	tons/hours	Ore	1/1/1972	7/1/1972	Null	
	EQUI 673	EU402	Tertiary Crusher Line 28 New	Sandvik	custom	350	tons/hours	Ore	5/31/2012	5/31/2012	Null	
	EQUI 674	EU405	Replacement Tertiary Crusher L23 (Metso)	Metso	MP800	550	long tons/hours	Ore	9/27/2017	9/27/2017	Null	
	EQUI 675	EU406	Replacement Tertiary Crusher L27 (Metso)	Metso	MP800	550	long tons/hours	Ore	9/27/2017	9/27/2017	Null	
Feeder	EQUI 206	EU022	Step I Coarse Crusher Pan Feeders	Major mod	on 8/20/92	5,580	tons/hours	Ore	12/31/1967	10/2/1969	Null	
	EQUI 207	EU023	Step I Coarse Crusher Pan Feeders	Major mod	on 8/20/92	5,580	tons/hours	Ore	12/31/1967	10/2/1969	Null	
	EQUI 208	EU024	Step II Coarse Crusher Pan Feeders	Major mod	on 8/20/92	5,580	tons/hours	Ore	12/31/1967	10/2/1969	Null	
	EQUI 281	EU026	Step III Coarse Crusher Pan Feeders	Major mod	on 8/20/92	5,580	tons/hours	Ore	1/1/1978	10/9/1978	Null	
	EQUI 351	EU229	L3 Feeder 041/046 Belts	U. S. Steel	Custom	290	tons/hours	Pellet	12/31/1967	10/2/1969	Null	
	EQUI 374	EU025	Step II Coarse Crusher Pan Feeders	Major mod	on 8/20/92	5,580	tons/hours	Ore	12/31/1967	10/2/1969	Null	
	EQUI 375	EU027	Step III Coarse Crusher Pan Feeders	Major mod	on 8/20/92	5,580	tons/hours	Ore	1/1/1978	10/9/1978	Null	
Furnace	EQUI 282	EU028	Zinc Melt Furnace	LindbergMPH	61-CHT1000-POT	1,358	million British thermal units/hours	Heat	12/31/1967	10/2/1969	Null	
	EQUI 311	EU142	Zinc Melt Furnace	Unknown	099-01-1D1	1,358	million British thermal units/hours	Heat	12/31/1967	10/2/1969	Null	
	EQUI 312	EU143	Zinc Melt Furnace	Unknown	099-01-2D1	1,358	million British thermal units/hours	Heat	1/1/1978	10/9/1978	Null	
	EQUI 317	EU031	Zinc Melt Furnace	Unknown	059-03-1D1	1,358	million British thermal units/hours	Heat	1/1/1978	10/9/1978	Null	
	EQUI 376	EU032	Zinc Melt Furnace	Unknown	059-03-2D1	1,358	million British thermal units/hours	Heat	1/1/1978	10/9/1978	Null	
Hopper	EQUI 278	EU300	S3 Ben storage+unloading hopper	U. S. Steel	Custom	50	tons/hours	Bentonite	1/1/1978	10/9/1978	Null	
	EQUI 684	Null	Coal Unloading Hopper	U. S. Steel	Custom	34	tons/hours	Coal	1/1/1978	10/9/1978	Null	

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SI Type	Subject Item ID	Delta Designation	Description	Manufacturer	Model	Max Design Capacity	Max Design Capacity Units	Material	Construction Start Date	Operation Start Date	Modification Date	
Hopper	EQUI 705	EU393	Limestone Dump Pocket	U.S Steel	Custom	3,808	tons/hours	Limestone	3/1/1997	12/1/1997	Null	
Loading-Unloading Equipment	EQUI 127	EU366	Step III Pellet Loadout	U. S. Steel	Custom	11,821	cubic feet/minutes	Pellet	1/1/1979	1/1/1979	Null	
	EQUI 359	EU243	S1,2 Bentonite Unloading	U. S. Steel	Custom	50	tons/hours	Bentonite	12/31/1967	10/2/1969	Null	
Material Handling Equipment	EQUI 108	EU340	Step I 043/044 Conveyor Transfer	U. S. Steel	Custom	3,778	cubic feet/minutes	Pellet	1/1/1979	1/1/1979	Null	
	EQUI 124	EU359	Step III 043/044 Conveyor Transfer	U. S. Steel	Custom	11,821	cubic feet/minutes	Pellet	1/1/1979	1/1/1979	Null	
	EQUI 125	EU361	Step III 043/044 Conveyor Transfer	U. S. Steel	Custom	11,821	cubic feet/minutes	Pellet	1/1/1979	1/1/1979	Null	
	EQUI 126	EU363	Step III 044-6/044-7 Conveyor Transfer	U. S. Steel	Custom	11,821	cubic feet/minutes	Pellet	1/1/1979	1/1/1979	Null	
	EQUI 188	EU360	Step III 043/044 Conveyor Transfer	U. S. Steel	Custom	11,821	cubic feet/minutes	Pellet	1/1/1979	1/1/1979	Null	
	EQUI 189	EU362	Step III 043/044 Conveyor Transfer	U. S. Steel	Custom	11,821	cubic feet/minutes	Pellet	1/1/1979	1/1/1979	Null	
	EQUI 190	EU364	Step III 044-6/044-7 Conveyor Transfer	U. S. Steel	Custom	11,821	cubic feet/minutes	Pellet	1/1/1979	1/1/1979	Null	
	EQUI 191	EU365	Step III 044-6/044-7 Conveyor Transfer	U. S. Steel	Custom	11,821	cubic feet/minutes	Pellet	1/1/1979	1/1/1979	Null	
	EQUI 266	EU396	Hill Wood Products system	Hill Wood Products	Custom	30	tons/hours	Material	4/2/2001	4/2/2001	Null	
	EQUI 270	EU339	Step I 043/044 Conveyor Transfer	U. S. Steel	Custom	3,778	cubic feet/minutes	Pellet	1/1/1979	1/1/1979	Null	
	EQUI 325	EU048	Surge Pile/Reclaim 011-01	U. S. Steel	Custom	3,100	tons/hours	Ore	1/1/1972	7/1/1972	Null	
	EQUI 704	EU395	Limestone Conveyor Transfer 2	U.S Steel	Custom	3,808	tons/years	Limestone	3/1/1997	12/1/1997	Null	
Other Emission Unit	EQUI 373	EU389	Electric Shop Curing Oven (new)	Bayco	C2B-3456	2	million British thermal units/hours	Heat	1/1/1993	12/8/1993	Null	
	EQUI 707	Null	Line 3 Waste Gas Cyclone	Custom	Custom	268.8	tons/hours	Pellet	Null	6/27/1905	Null	
	EQUI 708	Null	Line 4 Waste Gas Cyclone	Ducon Dynamics	VM700	488.3	tons/hours	Pellet	Null	1/1/1972	Null	
	EQUI 709	Null	Line 5 Waste Gas Cyclone	Ducon Dynamics	VM700	488.3	tons/hours	Pellet	Null	1/1/1972	Null	
	EQUI 710	Null	Line 6 Waste Gas Cyclone	Ducon Dynamics	VM700	488.3	tons/hours	Pellet	Null	1/1/1978	Null	
	EQUI 711	Null	Line 7 Waste Gas Cyclone	Ducon Dynamics	VM700	488.3	tons/hours	Pellet	Null	1/1/1978	Null	
Process Heater	EQUI 255	EU401	Heaters (25 units, Ltr 8/10/01)	Barry Blowers	DFDH-140-40-100	88,460,000	British thermal units/hours	Heat	8/21/2001	10/1/2001	Null	

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SI Type	Subject Item ID	Delta Designation	Description	Manufacturer	Model	Max Design Capacity	Max Design Capacity Units	Material	Construction Start Date	Operation Start Date	Modification Date	
Screens	EQUI 46	EU399	L4 Pellet Scrn Fine Belt	U. S. Steel	Custom	540	tons/hours	Pellet	10/1/2002	1/1/2003	Null	
	EQUI 273	EU400	L5 Pellet Scrn Fine Belt	U. S. Steel	Custom	540	tons/hours	Pellet	10/1/2002	1/1/2003	Null	
Silo/Bin	EQUI 13	EU116	Tertiary Storage 006-080 Bin	U. S. Steel	Custom	1,016	tons/hours	Ore	1/1/1978	10/9/1978	Null	
	EQUI 14	EU118	Tertiary Storage 006-080 Bin	U. S. Steel	Custom	1,016	tons/hours	Ore	1/1/1978	10/9/1978	Null	
	EQUI 15	EU120	Tertiary Storage 006-080 Bin	U. S. Steel	Custom	1,016	tons/hours	Ore	1/1/1978	10/9/1978	Null	
	EQUI 19	EU160	Storage Bin L3,4	U. S. Steel	Custom	806	tons/hours	Ore	12/31/1967	10/2/1969	Null	
	EQUI 20	EU162	Storage Bin L5,6	U. S. Steel	Custom	322	tons/hours	Ore	12/31/1967	10/2/1969	Null	
	EQUI 21	EU165	Storage Bin L5,6	U. S. Steel	Custom	322	tons/hours	Ore	12/31/1967	10/2/1969	Null	
	EQUI 22	EU168	Storage Bin L5,6	U. S. Steel	Custom	806	tons/hours	Ore	12/31/1967	10/2/1969	Null	
	EQUI 23	EU171	Storage Bin L7,8	U. S. Steel	Custom	322	tons/hours	Ore	1/1/1972	7/1/1972	Null	
	EQUI 24	EU174	Storage Bin L7,8	U. S. Steel	Custom	806	tons/hours	Ore	1/1/1972	7/1/1972	Null	
	EQUI 25	EU177	Storage Bin L9,10	U. S. Steel	Custom	322	tons/hours	Ore	1/1/1972	7/1/1972	Null	
	EQUI 26	EU179	Storage Bin L9,10	U. S. Steel	Custom	322	tons/hours	Ore	1/1/1972	7/1/1972	Null	
	EQUI 27	EU269	L5 Bentonite Day Bins	U. S. Steel	Custom	135	tons/hours	Bentonite	1/1/1972	7/1/1972	Null	
	EQUI 28	EU270	L5 Bentonite Day Bins	U. S. Steel	Custom	135	tons/hours	Bentonite	1/1/1972	7/1/1972	Null	
	EQUI 29	EU271	L5 Bentonite Day Bins	U. S. Steel	Custom	135	tons/hours	Bentonite	1/1/1972	7/1/1972	Null	
	EQUI 30	EU272	L5 Bentonite Day Bins	U. S. Steel	Custom	135	tons/hours	Bentonite	1/1/1972	7/1/1972	Null	
	EQUI 54	EU068	Tertiary Storage Bin 1-4	U. S. Steel	Custom	396	tons/hours	Ore	12/31/1972	10/2/1969	Null	
	EQUI 65	EU085	Tertiary Crusher 080 Bins 5-8	U. S. Steel	Custom	1,016	tons/hours	Ore	12/31/1972	7/1/1972	Null	
	EQUI 66	EU086	Tertiary Crusher 080 Bins 5-8	U. S. Steel	Custom	1,016	tons/hours	Ore	12/31/1972	7/1/1972	Null	
	EQUI 67	EU087	Tertiary Crusher 080 Bins 5-8	U. S. Steel	Custom	1,016	tons/hours	Ore	12/31/1972	7/1/1972	Null	
	EQUI 68	EU088	Tertiary Crusher 080 Bins 5-8	U. S. Steel	Custom	1,016	tons/hours	Ore	12/31/1972	7/1/1972	Null	

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SI Type Silo/Bin	Subject Item ID	Delta Designation	Description	Manufacturer	Model	Max Design Capacity	Max Design Capacity Units	Material	Construction Start Date	Operation Start Date	Modification Date	
	EQUI 88	EU298	S3 Bentonite Storage	U. S. Steel	Custom	540	tons/hours	Bentonite	1/1/1978	10/9/1978	Null	
	EQUI 89	EU299	S3 Bentonite Storage	U. S. Steel	Custom	540	tons/hours	Bentonite	1/1/1978	10/9/1978	Null	
	EQUI 90	EU301	L6 Bentonite Day Bin	U. S. Steel	Custom	135	tons/hours	Bentonite	1/1/1978	10/9/1978	Null	
	EQUI 91	EU303	L6 Bentonite Day Bin	U. S. Steel	Custom	135	tons/hours	Bentonite	1/1/1978	10/9/1978	Null	
	EQUI 92	EU304	L6 Bentonite Day Bin	U. S. Steel	Custom	135	tons/hours	Bentonite	1/1/1978	10/9/1978	Null	
	EQUI 98	EU320	L7 Bentonite Day Bin	U. S. Steel	Custom	135	tons/hours	Bentonite	1/1/1978	10/9/1978	Null	
	EQUI 99	EU322	L7 Bentonite Day Bin	U. S. Steel	Custom	135	tons/hours	Bentonite	1/1/1978	10/9/1978	Null	
	EQUI 100	EU324	L7 Bentonite Day Bin	U. S. Steel	Custom	135	tons/hours	Bentonite	1/1/1978	10/9/1978	Null	
	EQUI 136	EU198	Storage Bin L13,14	U. S. Steel	Custom	322	tons/hours	Ore	1/1/1978	10/9/1978	Null	
	EQUI 137	EU201	Storage Bin L15,16	U. S. Steel	Custom	322	tons/hours	Ore	1/1/1978	10/9/1978	Null	
	EQUI 138	EU203	Storage Bin L15,16	U. S. Steel	Custom	322	tons/hours	Ore	1/1/1978	10/9/1978	Null	
	EQUI 139	EU206	Storage Bin L15,16	U. S. Steel	Custom	806	tons/hours	Ore	1/1/1978	10/9/1978	Null	
	EQUI 140	EU209	Storage Bin L17,18	U. S. Steel	Custom	322	tons/hours	Ore	1/1/1978	10/9/1978	Null	
	EQUI 141	EU212	Storage Bin L17,18	U. S. Steel	Custom	322	tons/hours	Ore	1/1/1978	10/9/1978	Null	
	EQUI 142	EU214	Storage Bin L17,18	U. S. Steel	Custom	806	tons/hours	Ore	1/1/1978	10/9/1978	Null	
	EQUI 151	EU237	S1 Bentonite Storage Bin	U. S. Steel	Custom	290	tons/hours	Bentonite	12/31/1967	10/2/1969	Null	
	EQUI 152	EU239	L2,3 Bentonite Day Bin	U. S. Steel	Custom	97	tons/hours	Bentonite	12/31/1967	10/2/1969	Null	
	EQUI 153	EU242	L2,3 Bentonite Day Bin	U. S. Steel	Custom	97	tons/hours	Bentonite	12/31/1967	10/2/1969	Null	
	EQUI 154	EU244	S2 Bentonite Storage Bin	U. S. Steel	Custom	540	tons/hours	Bentonite	1/1/1972	7/1/1972	Null	
	EQUI 155	EU247	L4 Bentonite Day Bins	U. S. Steel	Custom	135	tons/hours	Bentonite	1/1/1972	7/1/1972	Null	
	EQUI 156	EU249	L4 Bentonite Day Bins	U. S. Steel	Custom	135	tons/hours	Bentonite	1/1/1972	7/1/1972	Null	
	EQUI 165	EU297	S3 Bentonite Storage	U. S. Steel	Custom	540	tons/hours	Bentonite	1/1/1978	10/9/1978	Null	

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SI Type Silo/Bin	Subject Item ID	Delta Designation	Description	Manufacturer	Model	Max Design Capacity	Max Design Capacity Units	Material	Construction Start Date	Operation Start Date	Modification Date	
	EQUI 166	EU302	L6 Bentonite Day Bin	U. S. Steel	Custom	135	tons/hours	Bentonite	1/1/1978	10/9/1978	Null	
	EQUI 167	EU305	L6 Bentonite Day Bin	U. S. Steel	Custom	135	tons/hours	Bentonite	1/1/1978	10/9/1978	Null	
	EQUI 169	EU321	L7 Bentonite Day Bin	U. S. Steel	Custom	135	tons/hours	Bentonite	1/1/1978	10/9/1978	Null	
	EQUI 170	EU182	Storage Bin L9,10	U. S. Steel	Custom	806	tons/hours	Ore	1/1/1972	7/1/1972	Null	
	EQUI 171	EU185	Storage Bin L11,12	U. S. Steel	Custom	322	tons/hours	Ore	1/1/1972	7/1/1972	Null	
	EQUI 172	EU188	Storage Bin L11,12	U. S. Steel	Custom	806	tons/hours	Ore	1/1/1972	7/1/1972	Null	
	EQUI 174	EU195	Storage Bin L13,14	U. S. Steel	Custom	322	tons/hours	Ore	1/1/1978	10/9/1978	Null	
	EQUI 175	EU323	L7 Bentonite Day Bin	U. S. Steel	Custom	135	tons/hours	Bentonite	1/1/1978	10/9/1978	Null	
	EQUI 209	EU148	Storage Bin L1,2	U. S. Steel	Custom	322	tons/hours	Limestone	12/31/1967	10/2/1969	Null	
	EQUI 210	EU149	Storage Bin L1,2	U. S. Steel	Custom	322	tons/hours	Limestone	12/31/1967	10/2/1969	Null	
	EQUI 211	EU150	Storage Bin L1,2	U. S. Steel	Custom	322	tons/hours	Limestone	12/31/1967	10/2/1969	Null	
	EQUI 212	EU151	Storage Bin L1,2	U. S. Steel	Custom	322	tons/hours	Limestone	12/31/1967	10/2/1969	Null	
	EQUI 213	EU152	Storage Bin L1,2	U. S. Steel	Custom	322	tons/hours	Limestone	12/31/1967	10/2/1969	Null	
	EQUI 214	EU153	Storage Bin L1,2	U. S. Steel	Custom	322	tons/hours	Limestone	12/31/1967	10/2/1969	Null	
	EQUI 215	EU154	Storage Bin L1,2	U. S. Steel	Custom	322	tons/hours	Limestone	12/31/1967	10/2/1969	Null	
	EQUI 216	EU155	Storage Bin L3,4	U. S. Steel	Custom	322	tons/hours	Ore	12/31/1967	10/2/1969	Null	
	EQUI 217	EU156	Storage Bin L3,4	U. S. Steel	Custom	322	tons/hours	Ore	12/31/1967	10/2/1969	Null	
	EQUI 218	EU157	Storage Bin L3,4	U. S. Steel	Custom	322	tons/hours	Ore	12/31/1967	10/2/1969	Null	
	EQUI 219	EU158	Storage Bin L3,4	U. S. Steel	Custom	322	tons/hours	Ore	12/31/1967	10/2/1969	Null	
	EQUI 220	EU159	Storage Bin L3,4	U. S. Steel	Custom	322	tons/hours	Ore	12/31/1967	10/2/1969	Null	
	EQUI 221	EU161	Storage Bin L3,4	U. S. Steel	Custom	806	tons/hours	Ore	12/31/1967	10/2/1969	Null	
	EQUI 222	EU163	Storage Bin L5,6	U. S. Steel	Custom	322	tons/hours	Ore	12/31/1967	10/2/1969	Null	

Emission Units 3

AI ID (Name): 2476 (US Steel Corp - MinnTac)
Activity: IND20070001

SI Type Silo/Bin	Subject Item ID	Delta Designation	Description	Manufacturer	Model	Max Design Capacity	Max Design Capacity Units	Material	Construction Start Date	Operation Start Date	Modification Date	
	EQUI 223	EU164	Storage Bin L5,6	U. S. Steel	Custom	211	tons/hours	Ore	12/31/1967	10/2/1969	Null	
	EQUI 224	EU166	Storage Bin L5,6	U. S. Steel	Custom	322	tons/hours	Ore	12/31/1967	10/2/1969	Null	
	EQUI 225	EU167	Storage Bin L5,6	U. S. Steel	Custom	806	tons/hours	Ore	12/31/1967	10/2/1969	Null	
	EQUI 226	EU169	Storage Bin L7,8	U. S. Steel	Custom	322	tons/hours	Ore	1/1/1972	7/1/1972	Null	
	EQUI 227	EU170	Storage Bin L7,8	U. S. Steel	Custom	322	tons/hours	Ore	1/1/1972	7/1/1972	Null	
	EQUI 228	EU172	Storage Bin L7,8	U. S. Steel	Custom	322	tons/hours	Ore	1/1/1972	7/1/1972	Null	
	EQUI 229	EU173	Storage Bin L7,8	U. S. Steel	Custom	322	tons/hours	Ore	1/1/1972	7/1/1972	Null	
	EQUI 230	EU175	Storage Bin L7,8	U. S. Steel	Custom	806	tons/hours	Ore	1/1/1972	7/1/1972	Null	
	EQUI 231	EU176	Storage Bin L9,10	U. S. Steel	Custom	322	tons/hours	Ore	1/1/1972	7/1/1972	Null	
	EQUI 232	EU178	Storage Bin L9,10	U. S. Steel	Custom	322	tons/hours	Ore	1/1/1972	7/1/1972	Null	
	EQUI 233	EU180	Storage Bin L9,10	U. S. Steel	Custom	322	tons/hours	Ore	1/1/1972	7/1/1972	Null	
	EQUI 234	EU181	Storage Bin L9,10	U. S. Steel	Custom	806	tons/hours	Ore	1/1/1972	7/1/1972	Null	
	EQUI 235	EU183	Storage Bin L11,12	U. S. Steel	Custom	322	tons/hours	Ore	1/1/1972	7/1/1972	Null	
	EQUI 236	EU184	Storage Bin L11,12	U. S. Steel	Custom	322	tons/hours	Ore	1/1/1972	7/1/1972	Null	
	EQUI 237	EU186	Storage Bin L11,12	U. S. Steel	Custom	322	tons/hours	Ore	1/1/1972	7/1/1972	Null	
	EQUI 238	EU187	Storage Bin L11,12	U. S. Steel	Custom	322	tons/hours	Ore	1/1/1972	7/1/1972	Null	
	EQUI 239	EU189	Storage Bin L11,12	U. S. Steel	Custom	806	tons/hours	Ore	1/1/1972	7/1/1972	Null	
	EQUI 242	EU194	Storage Bin L13,14	U. S. Steel	Custom	322	tons/hours	Ore	1/1/1978	10/9/1978	Null	
	EQUI 243	EU196	Storage Bin L13,14	U. S. Steel	Custom	322	tons/hours	Ore	1/1/1978	10/9/1978	Null	
	EQUI 244	EU197	Storage Bin L13,14	U. S. Steel	Custom	322	tons/hours	Ore	1/1/1978	10/9/1978	Null	
	EQUI 245	EU199	Storage Bin L13,14	U. S. Steel	Custom	806	tons/hours	Ore	1/1/1978	10/9/1978	Null	
	EQUI 246	EU200	Storage Bin L13,14	U. S. Steel	Custom	806	tons/hours	Ore	1/1/1978	10/9/1978	Null	

Emission Units 3

AI ID (Name): 2476 (US Steel Corp - MinnTac)

Activity: IND20070001

SI Type Silo/Bin	Subject Item ID	Delta Designation	Description	Manufacturer	Model	Max Design Capacity	Max Design Capacity Units	Material	Construction Start Date	Operation Start Date	Modification Date	
	EQUI 247	EU202	Storage Bin L15,16	U. S. Steel	Custom	322	tons/hours	Ore	1/1/1978	10/9/1978	Null	
	EQUI 248	EU204	Storage Bin L15,16	U. S. Steel	Custom	322	tons/hours	Ore	1/1/1978	10/9/1978	Null	
	EQUI 249	EU205	Storage Bin L15,16	U. S. Steel	Custom	322	tons/hours	Ore	1/1/1978	10/9/1978	Null	
	EQUI 250	EU207	Storage Bin L15,16	U. S. Steel	Custom	806	tons/hours	Ore	1/1/1978	10/9/1978	Null	
	EQUI 251	EU208	Storage Bin L17,18	U. S. Steel	Custom	322	tons/hours	Ore	1/1/1978	10/9/1978	Null	
	EQUI 252	EU210	Storage Bin L17,18	U. S. Steel	Custom	322	tons/hours	Ore	1/1/1978	10/9/1978	Null	
	EQUI 253	EU211	Storage Bin L17,18	U. S. Steel	Custom	322	tons/hours	Ore	1/1/1978	10/9/1978	Null	
	EQUI 254	EU213	Storage Bin L17,18	U. S. Steel	Custom	806	tons/hours	Ore	1/1/1978	10/9/1978	Null	
	EQUI 291	EU117	Tertiary Storage 006-080 Bin	U. S. Steel	Custom	1,016	tons/hours	Ore	1/1/1978	10/9/1978	Null	
	EQUI 292	EU119	Tertiary Storage 006-080 Bin	U. S. Steel	Custom	1,016	tons/hours	Ore	1/1/1978	10/9/1978	Null	
	EQUI 293	EU121	Tertiary Storage 006-080 Bin	U. S. Steel	Custom	1,016	tons/hours	Ore	1/1/1978	10/9/1978	Null	
	EQUI 316	EU268	L5 Bentonite Day Bins	U. S. Steel	Custom	135	tons/hours	Bentonite	1/1/1972	7/1/1972	Null	
	EQUI 355	EU236	S1 Bentonite Storage Bin	U. S. Steel	Custom	290	tons/hours	Bentonite	12/31/1967	10/2/1969	Null	
	EQUI 356	EU238	S1 Bentonite Storage Bin	U. S. Steel	Custom	290	tons/hours	Bentonite	12/31/1967	10/2/1969	Null	
	EQUI 357	EU240	L2,3 Bentonite Day Bin	U. S. Steel	Custom	97	tons/hours	Bentonite	12/31/1967	10/2/1969	Null	
	EQUI 358	EU241	L2,3 Bentonite Day Bin	U. S. Steel	Custom	97	tons/hours	Bentonite	12/31/1967	10/2/1969	Null	
	EQUI 360	EU245	S2 Bentonite Storage Bin	U. S. Steel	Custom	540	tons/hours	Bentonite	1/1/1972	7/1/1972	Null	
	EQUI 361	EU246	S2 Bentonite Storage Bin	U. S. Steel	Custom	540	tons/hours	Bentonite	1/1/1972	7/1/1972	Null	
	EQUI 362	EU248	L4 Bentonite Day Bins	U. S. Steel	Custom	135	tons/hours	Bentonite	1/1/1972	7/1/1972	Null	
	EQUI 363	EU250	L4 Bentonite Day Bins	U. S. Steel	Custom	135	tons/hours	Bentonite	1/1/1972	7/1/1972	Null	
	EQUI 364	EU251	L4 Bentonite Day Bins	U. S. Steel	Custom	135	tons/hours	Bentonite	1/1/1972	7/1/1972	Null	
	EQUI 386	EU065	Tertiary Storage Bin 1-4	U. S. Steel	Custom	396	tons/hours	Ore	12/31/1967	10/2/1969	Null	

Emission Units 3

AI ID (Name): 2476 (US Steel Corp - MinnTac)
Activity: IND20070001

SI Type Silo/Bin	Subject Item ID	Delta Designation	Description	Manufacturer	Model	Max Design Capacity	Max Design Capacity Units	Material	Construction Start Date	Operation Start Date	Modification Date	
	EQUI 387	EU067	Tertiary Storage Bin 1-4	U. S. Steel	Custom	396	tons/hours	Ore	12/31/1967	10/2/1969	Null	
	EQUI 392	EU102	Conveyor Transfer 001 to 070	U. S. Steel	Custom	5,580	tons/hours	Ore	1/1/1967	10/2/1969	Null	

Component Groups

AI ID (Name): 2476 (US Steel Corp - MinnTac)
Activity: IND20070001

Subject Item ID	Delta Designation	Description	Group Member ID	
COMG 37	Null	Regional Haze and Facility-wide NOx Limits	EQUI 3	
			EQUI 146	
			EQUI 179	
			EQUI 279	
			EQUI 280	
COMG 38	Null	Line 6 and 7 Combined Limits	EQUI 3	
			EQUI 179	
COMG 39	Null	Taconite MACT Existing Ore Crushing and Handling	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	

Component Groups

AI ID (Name): 2476 (US Steel Corp - MinnTac)

Activity: IND20070001

Subject Item ID	Delta Designation	Description	Group Member ID	
COMG 39	Null	Taconite MACT Existing Ore Crushing and Handling	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	
			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	

Component Groups

AI ID (Name): 2476 (US Steel Corp - MinnTac)
Activity: IND20070001

Subject Item ID	Delta Designation	Description	Group Member ID	
COMG 39	Null	Taconite MACT Existing Ore Crushing and Handling	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	
			EQUI 287	
			EQUI 288	
			EQUI 289	
			EQUI 290	
			EQUI 291	
			EQUI 292	
			EQUI 293	
			EQUI 297	
			EQUI 298	

Component Groups

AI ID (Name): 2476 (US Steel Corp - MinnTac)
Activity: IND20070001

Subject Item ID	Delta Designation	Description	Group Member ID	
COMG 39	Null	Taconite MACT Existing Ore Crushing and Handling	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	

Component Groups

AI ID (Name): 2476 (US Steel Corp - MinnTac)
Activity: IND20070001

Subject Item ID	Delta Designation	Description	Group Member ID	
COMG 39	Null	Taconite MACT Existing Ore Crushing and Handling	EQUI 378	
			EQUI 379	
			EQUI 380	
			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	Null	Taconite MACT Existing Finished Pellet Handling	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	Null	Taconite MACT fugitive sources	FUGI 1	

Component Groups

AI ID (Name): 2476 (US Steel Corp - MinnTac)

Activity: IND20070001

Subject Item ID	Delta Designation	Description	Group Member ID	
COMG 41	Null	Taconite MACT fugitive sources	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	Null	Taconite MACT Testing Group: Step I and II Coarse Crushers - Scrubbers	EQUI 47	
			EQUI 72	
COMG 45	Null	Taconite MACT Testing Group: Step I and II Conveyors Group 2 - Scrubber	EQUI 6	
			EQUI 206	
			EQUI 207	
			EQUI 208	
			EQUI 325	
			EQUI 342	
			EQUI 374	
COMG 46	Null	Taconite MACT Testing Group: Step I and II Conveyors Group 2 - Cartridge Filters	EQUI 392	
			EQUI 6	
			EQUI 7	
			EQUI 51	
			EQUI 206	

Component Groups

AI ID (Name): 2476 (US Steel Corp - MinnTac)

Activity: IND20070001

Subject Item ID	Delta Designation	Description	Group Member ID	
COMG 46	Null	Taconite MACT Testing Group: Step I and II Conveyors Group 2 - Cartridge Filters	EQUI 207	
			EQUI 208	
			EQUI 325	
			EQUI 342	
			EQUI 343	
			EQUI 374	
			EQUI 392	
COMG 47	Null	Taconite MACT Testing Group: Step I and II Conveyors Group 3 - Cartridge Filters	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	Null	Taconite MACT Testing Group: Secondary Crushers L1-L5 - Cartridge Filters	EQUI 283	
			EQUI 327	
			EQUI 328	
			EQUI 329	
			EQUI 382	
COMG 49	Null	Taconite MACT Testing Group: Secondary Crushers L6-L10 - Scrubbers	EQUI 5	
			EQUI 339	
			EQUI 340	
			EQUI 341	
			EQUI 390	
COMG 50	Null	Taconite MACT Testing Group: Secondary Crushers L6-L10 - Cartridge Filters	EQUI 5	
			EQUI 339	
			EQUI 340	
			EQUI 341	
			EQUI 390	
COMG 51	Null	Taconite MACT Testing Group: Tertiary Crushers L1-L6 - Cartridge Filters	EQUI 335	
			EQUI 336	

Component Groups

AI ID (Name): 2476 (US Steel Corp - MinnTac)

Activity: IND20070001

Subject Item ID	Delta Designation	Description	Group Member ID	
COMG 51	Null	Taconite MACT Testing Group: Tertiary Crushers L1-L6 - Cartridge Filters	EQUI 337	
			EQUI 338	
			EQUI 386	
			EQUI 387	
			EQUI 388	
			EQUI 389	
COMG 52	Null	Taconite MACT Testing Group: Tertiary Crushers L7-L12 - Cartridge Filters	EQUI 55	
			EQUI 56	
			EQUI 57	
			EQUI 58	
			EQUI 59	
			EQUI 60	
			EQUI 66	
COMG 53	Null	Taconite MACT Testing Group: Tertiary Crushers L13-L16 - Cartridge Filters	EQUI 61	
			EQUI 62	
			EQUI 63	
			EQUI 64	
			EQUI 65	
			EQUI 68	
COMG 54	Null	Taconite MACT Testing Group: Step I and II Conveyors Group 4 - Cartridge Filters	EQUI 313	
			EQUI 314	
			EQUI 326	
			EQUI 381	
			EQUI 393	
COMG 55	Null	Taconite MACT Testing Group: Step I and II Storage Bins - Scrubbers	EQUI 394	
			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	

Component Groups

AI ID (Name): 2476 (US Steel Corp - MinnTac)
Activity: IND20070001

Subject Item ID	Delta Designation	Description	Group Member ID	
COMG 55	Null	Taconite MACT Testing Group: Step I and II Storage Bins - Scrubbers	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	
COMG 56	Null	Taconite MACT Testing Group: Step III Pan feeders - Scrubbers	EQUI 281	
			EQUI 375	
COMG 57	Null	Taconite MACT Testing Group: Step III Pan feeders - Cartridge Filters	EQUI 281	
			EQUI 375	
COMG 58	Null	Taconite MACT Testing Group: Step III Secondary Crushers L11-15 - Scrubbers	EQUI 9	
			EQUI 285	
			EQUI 286	
COMG 59	Null	Taconite MACT Testing Group: Step III Secondary Crushers L11-15 - Cartridge Filters	EQUI 9	
			EQUI 10	
			EQUI 285	
			EQUI 286	
			EQUI 287	
COMG 60	Null	Taconite MACT Testing Group: Step III Secondary Crushers L18-23 - Scrubbers	EQUI 297	
			EQUI 298	
			EQUI 299	
			EQUI 300	
			EQUI 301	

Component Groups

AI ID (Name): 2476 (US Steel Corp - MinnTac)

Activity: IND20070001

Subject Item ID	Delta Designation	Description	Group Member ID	
COMG 61	Null	Taconite MACT Testing Group: Step III Secondary Crushers L18-22 - Cartridge Filters	EQUI 297	
			EQUI 298	
			EQUI 299	
			EQUI 300	
			EQUI 301	
COMG 62	Null	Taconite MACT Testing Group: Step III Secondary Crushers L23-28 - Scrubbers	EQUI 303	
			EQUI 304	
			EQUI 305	
			EQUI 673	
			EQUI 674	
COMG 63	Null	Taconite MACT Testing Group: Step III Secondary Crushers L24-28 - Fabric Filters	EQUI 303	
			EQUI 304	
			EQUI 305	
			EQUI 673	
			EQUI 674	
COMG 64	Null	Taconite MACT Testing Group: Step III Conveyors Group 1 - Scrubbers	EQUI 303	
			EQUI 304	
			EQUI 305	
			EQUI 673	
			EQUI 674	
			EQUI 675	
			EQUI 8	
			EQUI 11	
			EQUI 12	
			EQUI 173	
COMG 65	Null	Taconite MACT Testing Group: Step III Conveyors - Cartridge Filters	EQUI 240	
			EQUI 241	
			EQUI 284	
			EQUI 288	
			EQUI 289	
			EQUI 290	
			EQUI 395	
			EQUI 8	
			EQUI 11	
			EQUI 12	
			EQUI 173	
			EQUI 240	
			EQUI 241	
			EQUI 284	
			EQUI 288	
			EQUI 289	
			EQUI 290	
			EQUI 395	

Component Groups

AI ID (Name): 2476 (US Steel Corp - MinnTac)

Activity: IND20070001

Subject Item ID	Delta Designation	Description	Group Member ID	
COMG 66	Null	Taconite MACT Testing Group: Step III Storage Bins Group 1 - Fabric Filters	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	Null	Taconite MACT Testing Group: Step III Conveyors Group 2 - Fabric Filters	EQUI 309	
			EQUI 310	
			EQUI 321	
			EQUI 322	
			EQUI 323	
			EQUI 378	
			EQUI 379	
			EQUI 380	
COMG 68	Null	Taconite MACT Testing Group: Step III Storage Bins Group 2 - Scrubbers	EQUI 13	
			EQUI 14	
			EQUI 15	
			EQUI 137	
			EQUI 138	
			EQUI 139	
			EQUI 247	
			EQUI 248	
			EQUI 249	
			EQUI 250	
			EQUI 291	
			EQUI 292	
COMG 69	Null	Taconite MACT Testing Group: Step I/II Pellet Handling Conveyors - Scrubbers	EQUI 46	
			EQUI 81	
			EQUI 82	
			EQUI 108	

Component Groups

AI ID (Name): 2476 (US Steel Corp - MinnTac)

Activity: IND20070001

Subject Item ID	Delta Designation	Description	Group Member ID	
COMG 69	Null	Taconite MACT Testing Group: Step I/II Pellet Handling Conveyors - Scrubbers	EQUI 149	
			EQUI 150	
			EQUI 270	
			EQUI 272	
			EQUI 273	
			EQUI 315	
			EQUI 351	
			EQUI 353	
			EQUI 354	
			EQUI 372	
COMG 70	Null	Taconite MACT Testing Group: Step I/II Grate Feeds - Scrubbers	EQUI 36	
			EQUI 159	
			EQUI 347	
COMG 71	Null	Taconite MACT Testing Group: Step I/II Cooler Discharge - Scrubbers	EQUI 42	
			EQUI 79	
			EQUI 147	
			EQUI 272	
			EQUI 371	
COMG 72	Null	Taconite MACT Testing Group: Step III Pellet Handling Conveyors - Scrubbers	EQUI 87	
			EQUI 119	
			EQUI 120	
			EQUI 122	
			EQUI 123	
			EQUI 164	
COMG 73	Null	Line 3 CEMS	EQUI 256	
			EQUI 257	
			EQUI 713	
COMG 74	Null	Line 4 CEMS	EQUI 264	
			EQUI 265	
			EQUI 714	
COMG 75	Null	Line 5 CEMS	EQUI 258	
			EQUI 259	
			EQUI 715	
COMG 76	Null	Line 6 CEMS	EQUI 260	
			EQUI 261	
			EQUI 716	
COMG 77	Null	Line 7 CEMS	EQUI 262	
			EQUI 263	
			EQUI 717	

Component Groups

AI ID (Name): 2476 (US Steel Corp - MinnTac)

Activity: IND20070001

Subject Item ID	Delta Designation	Description	Group Member ID	
COMG 78	Null	Taconite MACT Testing Group: Step III Grate Feeds - Scrubbers	EQUI 96	
			EQUI 104	
COMG 79	Null	Line 6 and 7 Mercury Emission Inventory Testing	EQUI 3	
			EQUI 179	
COMG 80	Null	Line 4 and 5 Mercury Emission Inventory Testing	EQUI 279	
			EQUI 280	

PTE by SI

AI ID (Name): 2476 (US Steel Corp - MinnTac)

Activity: IND20070001

SI Category	SI Type	Subject Item ID	Delta Designation	Description	Pollutant	Potential (lbs/hr)	Unrestricted Potential (tons/yr)	Potential Limited (tons/yr)	Actual Emissions (tons/yr)
Component Group	Air Compone...	COMG 37	Null	Regional Haze and Facility...	Nitrogen Oxides			7,300	
Equipment	Blender	EQUI 31	EU273	L5 Bentonite Blending	Particulate Matter	0.15	100.07	0.65	
					PM < 2.5 micron	0.11	30.21	0.49	
					PM < 10 micron	0.17	85.24	0.76	
		EQUI 32	EU274	L5 Bentonite Blending	Particulate Matter	0.15	100.07	0.65	
					PM < 2.5 micron	0.11	30.21	0.49	
					PM < 10 micron	0.17	85.24	0.76	
		EQUI 33	EU275	L5 Bentonite Blending	Particulate Matter	0.15	100.07	0.65	
					PM < 2.5 micron	0.11	30.21	0.49	
					PM < 10 micron	0.17	85.24	0.76	
		EQUI 34	EU276	L5 Bentonite Blending	Particulate Matter	0.15	100.07	0.65	
					PM < 2.5 micron	0.11	30.21	0.49	
					PM < 10 micron	0.17	85.24	0.76	
		EQUI 35	EU277	L5 Bentonite Blending	Particulate Matter	0.15	100.07	0.65	
					PM < 2.5 micron	0.11	30.21	0.49	
					PM < 10 micron	0.17	85.24	0.76	
		EQUI 93	EU306	L6 Bentonite Blending	Particulate Matter	0.15	100.07	0.65	
					PM < 2.5 micron	0.1	30.17	0.45	
					PM < 10 micron	0.17	85.21	0.73	
		EQUI 94	EU307	L6 Bentonite Blending	Particulate Matter	0.15	100.07	0.65	
					PM < 2.5 micron	0.1	30.17	0.45	
					PM < 10 micron	0.17	85.21	0.73	
		EQUI 95	EU309	L6 Bentonite Blending	Particulate Matter	0.15	100.07	0.65	
					PM < 2.5 micron	0.1	30.17	0.45	
					PM < 10 micron	0.17	85.21	0.73	
		EQUI 101	EU325	L7 Bentonite Blending	Particulate Matter	0.15	100.07	0.65	
					PM < 2.5 micron	0.1	30.17	0.45	
					PM < 10 micron	0.17	85.21	0.73	
		EQUI 102	EU327	L7 Bentonite Blending	Particulate Matter	0.15	100.07	0.65	
					PM < 2.5 micron	0.1	30.17	0.45	
					PM < 10 micron	0.17	85.21	0.73	
		EQUI 103	EU328	L7 Bentonite Blending	Particulate Matter	0.15	100.07	0.65	
					PM < 2.5 micron	0.1	30.17	0.45	
					PM < 10 micron	0.17	85.21	0.73	
		EQUI 143	EU217	L3 Bentonite Blending	Particulate Matter	0.11	71.9	0.47	
					PM < 2.5 micron	0.11	21.83	0.47	
					PM < 10 micron	0.15	61.37	0.67	
		EQUI 144	EU220	L3 Bentonite Blending	Particulate Matter	0.11	71.9	0.47	
					PM < 2.5 micron	0.11	21.83	0.47	
					PM < 10 micron	0.15	61.37	0.67	
		EQUI 157	EU252	L4 Bentonite Blending	Particulate Matter	0.15	100.07	0.65	
					PM < 2.5 micron	0.11	30.21	0.49	
					PM < 10 micron	0.17	85.24	0.76	
		EQUI 158	EU254	L4 Bentonite Blending	Particulate Matter	0.15	100.07	0.65	
					PM < 2.5 micron	0.11	30.21	0.49	
					PM < 10 micron	0.17	85.24	0.76	
		EQUI 168	EU308	L6 Bentonite Blending	Particulate Matter	0.15	100.07	0.65	
					PM < 2.5 micron	0.1	30.17	0.45	
					PM < 10 micron	0.17	85.21	0.73	
		EQUI 176	EU326	L7 Bentonite Blending	Particulate Matter	0.15	100.07	0.65	
					PM < 2.5 micron	0.1	30.17	0.45	
					PM < 10 micron	0.17	85.21	0.73	
		EQUI 177	EU329	L7 Bentonite Blending	Particulate Matter	0.15	100.07	0.65	
					PM < 2.5 micron	0.1	30.17	0.45	
					PM < 10 micron	0.17	85.21	0.73	
		EQUI 269	EU310	L6 Bentonite Blending	Particulate Matter	0.15	100.07	0.65	
					PM < 2.5 micron	0.1	30.17	0.45	
					PM < 10 micron	0.17	85.21	0.73	
		EQUI 345	EU218	L3 Bentonite Blending	Particulate Matter	0.11	71.9	0.47	
					PM < 2.5 micron	0.11	21.83	0.47	
					PM < 10 micron	0.15	61.37	0.67	
		EQUI 346	EU219	L3 Bentonite Blending	Particulate Matter	0.11	71.9	0.47	
					PM < 2.5 micron	0.11	21.83	0.47	
					PM < 10 micron	0.15	61.37	0.67	
		EQUI 365	EU253	L4 Bentonite Blending	Particulate Matter	0.15	100.07	0.65	
					PM < 2.5 micron	0.11	30.21	0.49	
					PM < 10 micron	0.17	85.24	0.76	
		EQUI 366	EU255	L4 Bentonite Blending	Particulate Matter	0.15	100.07	0.65	
					PM < 2.5 micron	0.11	30.21	0.49	
					PM < 10 micron	0.17	85.24	0.76	
		EQUI 367	EU256	L4 Bentonite Blending	Particulate Matter	0.15	100.07	0.65	
					PM < 2.5 micron	0.11	30.21	0.49	
					PM < 10 micron	0.17	85.24	0.76	
	Boiler	EQUI 196	EU001	SI 104 MMBtu Heating Boiler	Arsenic compounds	0.000981	0.00429	0.00429	
					Beryllium Compounds	0.0207	0.0905	0.0905	
					Cadmium compounds	0.000296	0.00129	0.00129	
					Carbon Dioxide	16,794.64	73,560.54	73,560.54	
					Carbon Dioxide Equivalent	16,851.73	73,810.59	73,810.59	

PTE by SI

AI ID (Name): 2476 (US Steel Corp - MinnTac)
Activity: IND20070001

SI Category	SI Type	Subject Item ID	Delta Designation	Description	Pollutant	Potential (lbs/hr)	Unrestricted Potential (tons/yr)	Potential Limited (tons/yr)	Actual Emissions (tons/yr)
Equipment	Boiler	EQUI 196	EU001	SI 104 MMBtu Heating Boiler	Carbon Monoxide	8.32	36.44	36.44	
					Chromium compounds	0.000628	0.00275	0.00275	
					Cobalt compounds	8.32e-06	3.64e-05	3.64e-05	
					Formaldehyde	0.0245	0.107	0.107	
					HAPs - Total			0.819	
					Hexane	0.178	0.781	0.781	
					Manganese compounds	0.000223	0.000976	0.000976	
					Mercury Compounds	8.39e-05	0.000368	0.000368	
					Methane	0.69	3.01	3.01	
					Naphthalene	6.04e-05	0.000265	0.000265	
					Nickel compounds	0.0628	0.275	0.275	
					Nitrogen Oxides	27.73	121.47	121.47	
					Nitrous Oxide	0.14	0.6	0.6	
					Particulate Matter	1.49	6.51	6.51	
					PM < 2.5 micron	2.45	10.74	10.74	
					PM < 10 micron	2.45	10.74	10.74	
					Polycyclic organic matter	0.00245	0.0107	0.0107	
					Selenium compounds	2.38e-06	1.04e-05	1.04e-05	
					Sulfur Dioxide	54.86	240.29	240.29	
					Toluene	0.000337	0.00148	0.00148	
					Volatile Organic Compounds	5.68	24.89	24.89	
		EQUI 197	EU002	SI 104 MMBtu Heating Boiler	Arsenic compounds	0.000981	0.00429	0.00429	
					Beryllium Compounds	0.0207	0.0905	0.0905	
					Cadmium compounds	0.000296	0.00129	0.00129	
					Carbon Dioxide	16,794.64	73,560.54	73,560.54	
					Carbon Dioxide Equivalent	16,851.73	73,810.59	73,810.59	
					Carbon Monoxide	8.32	36.44	36.44	
					Chromium compounds	0.000628	0.00275	0.00275	
					Cobalt compounds	8.32e-06	3.64e-05	3.64e-05	
					Formaldehyde	0.0245	0.107	0.107	
					HAPs - Total			0.819	
					Hexane	0.178	0.781	0.781	
					Manganese compounds	0.000223	0.000976	0.000976	
					Mercury Compounds	8.39e-05	0.000368	0.000368	
					Methane	0.69	3.01	3.01	
					Naphthalene	6.04e-05	0.000265	0.000265	
					Nickel compounds	0.0628	0.275	0.275	
					Nitrogen Oxides	27.73	121.47	121.47	
					Nitrous Oxide	0.14	0.6	0.6	
					Particulate Matter	1.49	6.51	6.51	
					PM < 2.5 micron	2.45	10.74	10.74	
					PM < 10 micron	2.45	10.74	10.74	
					Polycyclic organic matter	0.00245	0.0107	0.0107	
					Selenium compounds	2.38e-06	1.04e-05	1.04e-05	
					Sulfur Dioxide	54.86	240.29	240.29	
					Toluene	0.000337	0.00148	0.00148	
					Volatile Organic Compounds	5.68	24.89	24.89	
		EQUI 198	EU003	SII 125 MMBtu Heating Boiler	Arsenic compounds	0.00118	0.00516	0.00516	
					Beryllium Compounds	0.0248	0.109	0.109	
					Cadmium compounds	0.000355	0.00156	0.00156	
					Carbon Dioxide	20,185.87	88,414.11	88,414.11	
					Carbon Dioxide Equivalent	20,242.91	88,663.96	88,663.96	
					Carbon Monoxide	10	43.8	43.8	
					Chromium compounds	0.000754	0.0033	0.0033	
					Cobalt compounds	1e-05	4.38e-05	4.38e-05	
					Formaldehyde	0.0295	0.129	0.129	
					HAPs - Total			0.984	
					Hexane	0.214	0.939	0.939	
					Manganese compounds	0.000268	0.00117	0.00117	
					Mercury Compounds	0.000101	0.000442	0.000442	
					Methane	0.28	1.21	1.21	
					Naphthalene	7.26e-05	0.000318	0.000318	
					Nickel compounds	0.0754	0.33	0.33	
					Nitrogen Oxides	33.33	146	146	
					Nitrous Oxide	0.17	0.72	0.72	
					Particulate Matter	1.79	7.82	7.82	
					PM < 2.5 micron	2.95	12.91	12.91	
					PM < 10 micron	2.95	12.91	12.91	
					Polycyclic organic matter	0.00295	0.0129	0.0129	
					Selenium compounds	2.86e-06	1.25e-05	1.25e-05	
					Sulfur Dioxide	65.94	288.81	288.81	
					Toluene	0.000405	0.00177	0.00177	
					Volatile Organic Compounds	6.83	29.92	29.92	
		EQUI 199	EU004	SIII 153 MMBtu Heating Boiler	Arsenic compounds	0.00144	0.00632	0.00632	
					Beryllium Compounds	0.0304	0.133	0.133	
					Cadmium compounds	0.000435	0.00191	0.00191	
					Carbon Dioxide	24,707.5	108,218.86	108,218.86	
					Carbon Dioxide Equivalent	24,791.49	108,586.73	108,586.73	

PTE by SI

AI ID (Name): 2476 (US Steel Corp - MinnTac)

Activity: IND20070001

SI Category	SI Type	Subject Item ID	Delta Designation	Description	Pollutant	Potential (lbs/hr)	Unrestricted Potential (tons/yr)	Potential Limited (tons/yr)	Actual Emissions (tons/yr)
Equipment	Boiler	EQUI 199	EU004	SIII 153 MMBtu Heating Boiler	Carbon Monoxide	12.24	53.61	53.61	
					Chromium compounds	0.000923	0.00404	0.00404	
					Cobalt compounds	1.22e-05	5.36e-05	5.36e-05	
					Formaldehyde	0.0361	0.158	0.158	
					HAPs - Total			1.205	
					Hexane	0.262	1.15	1.15	
					Manganese compounds	0.000328	0.00144	0.00144	
					Mercury Compounds	0.000123	0.000541	0.000541	
					Methane	1.01	4.43	4.43	
					Naphthalene	8.89e-05	0.000389	0.000389	
					Nickel compounds	0.0923	0.404	0.404	
					Nitrogen Oxides	40.8	178.7	178.7	
					Nitrous Oxide	0.2	0.89	0.89	
					Particulate Matter	2.19	9.57	9.57	
					PM < 2.5 micron	3.61	15.8	15.8	
					PM < 10 micron	3.61	15.8	15.8	
					Polycyclic organic matter	0.00361	0.0158	0.0158	
					Selenium compounds	3.5e-06	1.53e-05	1.53e-05	
					Sulfur Dioxide	80.71	353.5	353.5	
					Toluene	0.000495	0.00217	0.00217	
					Volatile Organic Compounds	8.36	36.62	36.62	
		EQUI 200	EU005	SIII 153 MMBtu Heating Boiler	Arsenic compounds	0.00144	0.00632	0.00632	
					Beryllium Compounds	0.0304	0.133	0.133	
					Cadmium compounds	0.000435	0.00191	0.00191	
					Carbon Dioxide	24,707.5	108,218.86	108,218.86	
					Carbon Dioxide Equivalent	24,791.49	108,586.73	108,586.73	
					Carbon Monoxide	12.24	53.61	53.61	
					Chromium compounds	0.000923	0.00404	0.00404	
					Cobalt compounds	1.22e-05	5.36e-05	5.36e-05	
					Formaldehyde	0.0361	0.158	0.158	
					HAPs - Total			1.205	
					Hexane	0.262	1.15	1.15	
					Manganese compounds	0.000328	0.00144	0.00144	
					Mercury Compounds	0.000123	0.000541	0.000541	
					Methane	1.01	4.43	4.43	
					Naphthalene	8.89e-05	0.000389	0.000389	
					Nickel compounds	0.0923	0.404	0.404	
					Nitrogen Oxides	40.8	178.7	178.7	
					Nitrous Oxide	0.2	0.89	0.89	
					Particulate Matter	2.19	9.57	9.57	
					PM < 2.5 micron	3.61	15.8	15.8	
					PM < 10 micron	3.61	15.8	15.8	
					Polycyclic organic matter	0.00361	0.0158	0.0158	
					Selenium compounds	3.5e-06	1.53e-05	1.53e-05	
					Sulfur Dioxide	80.71	353.5	353.5	
					Toluene	0.000495	0.00217	0.00217	
					Volatile Organic Compounds	8.36	36.62	36.62	
		EQUI 201	EU010	24.6 MMBtu Boiler	Arsenic compounds	0.000232	0.00102	0.00102	
					Beryllium Compounds	0.00488	0.0214	0.0214	
					Cadmium compounds	6.99e-05	0.000306	0.000306	
					Carbon Dioxide	3,972.58	17,399.9	17,399.9	
					Carbon Dioxide Equivalent	3,986.08	17,459.04	17,459.04	
					Carbon Monoxide	1.97	8.62	8.62	
					Chromium compounds	0.000148	0.00065	0.00065	
					Cobalt compounds	1.97e-06	8.62e-06	8.62e-06	
					Formaldehyde	0.0058	0.0254	0.0254	
					HAPs - Total			0.194	
					Hexane	0.0422	0.185	0.185	
					Manganese compounds	5.27e-05	0.000231	0.000231	
					Mercury Compounds	1.99e-05	8.7e-05	8.7e-05	
					Methane	0.16	0.71	0.71	
					Naphthalene	1.43e-05	6.26e-05	6.26e-05	
					Nickel compounds	0.0148	0.065	0.065	
					Nitrogen Oxides	6.56	28.73	28.73	
					Nitrous Oxide	0.03	0.14	0.14	
					Particulate Matter	0.35	1.54	1.54	
					PM < 2.5 micron	0.58	2.54	2.54	
					PM < 10 micron	0.58	2.54	2.54	
					Polycyclic organic matter	0.00058	0.00254	0.00254	
					Selenium compounds	5.62e-07	2.46e-06	2.46e-06	
					Sulfur Dioxide	12.98	56.84	56.84	
					Toluene	7.97e-05	0.000349	0.000349	
					Volatile Organic Compounds	1.34	5.89	5.89	
		EQUI 202	EU011	24.6 MMBtu Boiler	Arsenic compounds	0.000232	0.00102	0.00102	
					Beryllium Compounds	0.0048	0.0214	0.0214	
					Cadmium compounds	6.99e-05	0.000306	0.000306	
					Carbon Dioxide	3,972.58	17,399.9	17,399.9	
					Carbon Dioxide Equivalent	3,986.08	17,459.04	17,459.04	

PTE by SI

AI ID (Name): 2476 (US Steel Corp - MinnTac)

Activity: IND20070001

SI Category	SI Type	Subject Item ID	Delta Designation	Description	Pollutant	Potential (lbs/hr)	Unrestricted Potential (tons/yr)	Potential Limited (tons/yr)	Actual Emissions (tons/yr)
Equipment	Boiler	EQUI 202	EU011	24.6 MMBtu Boiler	Carbon Monoxide	1.97	8.62	8.62	
					Chromium compounds	0.000148	0.00065	0.00065	
					Cobalt compounds	1.97e-06	8.62e-06	8.62e-06	
					Formaldehyde	0.0058	0.0254	0.0254	
					HAPs - Total			0.194	
					Hexane	0.0422	0.185	0.185	
					Manganese compounds	5.27e-05	0.000231	0.000231	
					Mercury Compounds	1.99e-05	8.7e-05	8.7e-05	
					Methane	0.16	0.71	0.71	
					Naphthalene	1.43e-05	6.26e-05	6.26e-05	
					Nickel compounds	0.0148	0.065	0.065	
					Nitrogen Oxides	6.56	28.73	28.73	
					Nitrous Oxide	0.03	0.14	0.14	
					Particulate Matter	0.35	1.54	1.54	
					PM < 2.5 micron	0.58	2.54	2.54	
					PM < 10 micron	0.58	2.54	2.54	
					Polycyclic organic matter	0.00058	0.00254	0.00254	
					Selenium compounds	5.62e-07	2.46e-06	2.46e-06	
					Sulfur Dioxide	12.98	56.84	56.84	
					Toluene	7.97e-05	0.000349	0.000349	
					Volatile Organic Compounds	1.34	5.89	5.89	
	Cleaning Equipment	EQUI 676	Null	Clean-up Materials	2-Butoxy ethanol	1.46	6.41	6.41	
					Toluene	0.413	1.81	1.81	
					Volatile Organic Compounds	10.2	44.7	44.7	
	Conveyor	EQUI 6	EU099	Conveyor Transfer 008 to 009	Particulate Matter	0.47	41.69	2.08	
					PM < 2.5 micron	0.34	12.76	1.5	
					PM < 10 micron	0.52	35.69	2.26	
		EQUI 7	EU101	Conveyor Transfer 008 to 009	Particulate Matter	0.21	18.62	0.93	
					PM < 2.5 micron	0.15	5.7	0.67	
					PM < 10 micron	0.23	15.93	1.01	
		EQUI 8	EU104	Conveyor Transfer 008-009	Particulate Matter	0.56	49	2.44	
					PM < 2.5 micron	0.4	14.99	1.76	
					PM < 10 micron	0.61	41.94	2.66	
		EQUI 11	EU111	Conveyor Transfer 001-070 Bin	Particulate Matter	0.77	67.85	3.38	
					PM < 2.5 micron	0.56	20.76	2.44	
					PM < 10 micron	0.84	58.08	3.68	
		EQUI 12	EU114	Conveyor Transfer 003-004	Particulate Matter	0.56	49	2.44	
					PM < 2.5 micron	0.4	14.99	1.76	
					PM < 10 micron	0.61	41.94	2.66	
		EQUI 36	EU278	L5 Grate Feed	Particulate Matter	0.96	84.43	4.2	
					PM < 2.5 micron	0.7	25.86	3.06	
					PM < 10 micron	1.05	72.3	4.61	
		EQUI 37	EU279	L5 Grate Discharge	Particulate Matter	0.96	124.4	4.2	
					PM < 2.5 micron	0.64	22.96	2.81	
					PM < 10 micron	0.96	66.5	4.19	
		EQUI 51	EU040	Conveyor Transfer 005-006	Particulate Matter	1.1	154.52	4.81	
					PM < 2.5 micron	0.66	23.75	2.89	
					PM < 10 micron	1.06	79.38	4.63	
		EQUI 52	EU049	Conveyor Transfer 005 Feed	Particulate Matter	1.03	783.5	4.51	
					PM < 2.5 micron	0.39	118.07	1.72	
					PM < 10 micron	0.71	400.13	3.13	
		EQUI 53	EU050	Conveyor Transfer 005 Discharge	Particulate Matter	1.03	783.5	4.51	
					PM < 2.5 micron	0.69	118.07	1.72	
					PM < 10 micron	0.71	400.13	3.13	
		EQUI 77	EU037	Conveyor Transfer 010-01	Particulate Matter	0.23	175.2	1.01	
					PM < 2.5 micron	0.09	26.4	0.38	
					PM < 10 micron	0.16	89.47	0.7	
		EQUI 78	EU038	Conveyor Transfer 010-01	Particulate Matter	0.23	175.2	1.01	
					PM < 2.5 micron	0.09	26.4	0.38	
					PM < 10 micron	0.16	89.47	0.7	
		EQUI 79	EU264	L4 Conveyor Transfer Feeder	Particulate Matter	1.94	170.98	8.51	
					PM < 2.5 micron	1.4	52.32	6.15	
					PM < 10 micron	2.12	146.35	9.28	
		EQUI 81	EU287	L5 Conveyor Transfer 041/046 to 042 Belts	Particulate Matter	0.14	12.06	0.6	
					PM < 2.5 micron	0.1	3.69	0.44	
					PM < 10 micron	0.15	10.33	0.66	
		EQUI 82	EU288	L5 Conveyor Transfer 041/046 to 042 Belts	Particulate Matter	0.14	12.06	0.6	
					PM < 2.5 micron	0.1	3.69	0.44	
					PM < 10 micron	0.15	10.33	0.66	
		EQUI 87	EU296	S3 Conveyor Transfer	Particulate Matter	0.84	73.88	3.68	
					PM < 2.5 micron	0.61	22.61	2.66	
					PM < 10 micron	0.92	63.24	4.01	
		EQUI 96	EU311	L6 Grate Feed	Particulate Matter	1.03	90.46	4.51	
					PM < 2.5 micron	0.75	27.71	3.28	
					PM < 10 micron	1.13	77.46	4.94	
		EQUI 97	EU312	L6 Grate Discharge	Particulate Matter	1.03	90.46	4.51	
					PM < 2.5 micron	0.76	27.75	3.33	
					PM < 10 micron	1.14	77.51	4.98	

PTE by SI

AI ID (Name): 2476 (US Steel Corp - MinnTac)

Activity: IND20070001

SI Category	SI Type	Subject Item ID	Delta Designation	Description	Pollutant	Potential (lbs/hr)	Unrestricted Potential (tons/yr)	Potential Limited (tons/yr)	Actual Emissions (tons/yr)
Equipment	Conveyor	EQUI 104	EU330	L7 Grate Feed	Particulate Matter	1.03	90.46	4.51	
					PM < 2.5 micron	0.75	27.71	3.28	
					PM < 10 micron	1.13	77.46	4.94	
		EQUI 109	EU342	Step III 042 Conveyor Vent	Particulate Matter	3.65	16	16	
					PM < 2.5 micron	1.21	5.28	5.28	
					PM < 10 micron	3.21	14.08	14.08	
		EQUI 110	EU343	Step III 043 Conveyor Vent	Particulate Matter	3.65	16	16	
					PM < 2.5 micron	1.21	5.28	5.28	
					PM < 10 micron	3.21	14.08	14.08	
		EQUI 111	EU345	Step III 044 Conveyor Vent	Particulate Matter	3.65	16	16	
					PM < 2.5 micron	1.21	5.28	5.28	
					PM < 10 micron	3.21	14.08	14.08	
		EQUI 112	EU347	Step III 044 Conveyor Vent	Particulate Matter	3.65	16	16	
					PM < 2.5 micron	1.21	5.28	5.28	
					PM < 10 micron	3.21	14.08	14.08	
		EQUI 113	EU349	Step III 044 Conveyor Vent	Particulate Matter	3.65	16	16	
					PM < 2.5 micron	1.21	5.28	5.28	
					PM < 10 micron	3.21	14.08	14.08	
		EQUI 114	EU350	Step III 044 Conveyor Vent	Particulate Matter	3.21	14.08	16	
					PM < 2.5 micron	1.21	5.28	5.28	
					PM < 10 micron	3.65	16	14.08	
		EQUI 115	EU352	Step III 044 Conveyor Vent	Particulate Matter	3.65	16	16	
					PM < 2.5 micron	1.21	5.28	5.28	
					PM < 10 micron	3.21	14.08	14.08	
		EQUI 116	EU354	Step III 044 Conveyor Vent	Particulate Matter	3.65	16	16	
					PM < 2.5 micron	1.21	5.28	5.28	
					PM < 10 micron	3.21	14.08	14.08	
		EQUI 117	EU356	Step III 044 Conveyor Vent	Particulate Matter	3.65	16	16	
					PM < 2.5 micron	1.21	5.28	5.28	
					PM < 10 micron	3.21	14.08	14.08	
		EQUI 118	EU358	Step III 044 Conveyor Vent	Particulate Matter	3.65	16	16	
					PM < 2.5 micron	1.27	5.57	5.57	
					PM < 10 micron	3.28	14.37	14.37	
		EQUI 119	EU318	L6 Conveyor Transfer	Particulate Matter	1.6	140.52	7	
					PM < 2.5 micron	2.37	48.31	10.37	
					PM < 10 micron	2.96	125.6	12.95	
		EQUI 120	EU319	L6 Conveyor Transfer	Particulate Matter	1.6	140.52	7	
					PM < 2.5 micron	2.37	48.31	10.37	
					PM < 10 micron	2.96	125.6	12.95	
		EQUI 122	EU337	L7 Conveyor Transfer	Particulate Matter	0.84	73.88	3.68	
					PM < 2.5 micron	1.25	25.4	5.45	
					PM < 10 micron	1.55	66.04	6.81	
		EQUI 123	EU338	L7 Conveyor Transfer	Particulate Matter	0.84	73.88	3.68	
					PM < 2.5 micron	1.25	25.4	5.45	
					PM < 10 micron	1.55	66.04	6.81	
		EQUI 148	EU230	L3 041/046 Conveyor Belt Vent	Particulate Matter	1.13	4.94	4.94	
					PM < 2.5 micron	0.26	1.13	1.13	
					PM < 10 micron	0.65	2.86	2.86	
		EQUI 149	EU232	S1 Conveyor Transfer 042-043	Particulate Matter	0.51	45.23	2.25	
					PM < 2.5 micron	0.37	13.84	1.63	
					PM < 10 micron	0.56	38.72	2.46	
		EQUI 150	EU235	L3 Conveyor Transfer 041-042	Particulate Matter	0.51	45.23	2.25	
					PM < 2.5 micron	0.37	13.84	1.63	
					PM < 10 micron	0.56	38.72	2.46	
		EQUI 159	EU257	L4 Grate Feed	Particulate Matter	0.96	84.43	4.2	
					PM < 2.5 micron	0.7	25.86	3.06	
					PM < 10 micron	1.05	72.3	4.61	
		EQUI 164	EU295	S3 Conveyor Transfer	Particulate Matter	0.84	73.88	3.68	
					PM < 2.5 micron	0.61	22.61	2.66	
					PM < 10 micron	0.92	63.24	4.01	
		EQUI 173	EU190	Conveyor Transfer 009-020	Particulate Matter	0.45	39.96	1.99	
					PM < 2.5 micron	0.33	12.23	1.44	
					PM < 10 micron	0.5	34.2	2.17	
		EQUI 178	EU331	L7 Grate Discharge	Particulate Matter	3.2	414.08	14	
					PM < 2.5 micron	2.14	76.44	9.36	
					PM < 10 micron	3.19	221.37	13.95	
		EQUI 180	EU341	Step III 042 Conveyor Vent	Particulate Matter	3.65	16	16	
					PM < 2.5 micron	1.21	5.28	5.28	
					PM < 10 micron	3.21	14.08	14.08	
		EQUI 181	EU344	Step III 043 Conveyor Vent	Particulate Matter	3.65	16	16	
					PM < 2.5 micron	1.21	5.28	5.28	
					PM < 10 micron	3.21	14.08	14.08	
		EQUI 182	EU346	Step III 044 Conveyor Vent	Particulate Matter	3.65	16	16	
					PM < 2.5 micron	1.21	5.28	5.28	
					PM < 10 micron	3.21	14.08	14.08	
		EQUI 183	EU348	Step III 044 Conveyor Vent	Particulate Matter	3.65	16	16	
					PM < 2.5 micron	1.21	5.28	5.28	
					PM < 10 micron	3.21	14.08	14.08	

PTE by SI

AI ID (Name): 2476 (US Steel Corp - MinnTac)

Activity: IND20070001

SI Category	SI Type	Subject Item ID	Delta Designation	Description	Pollutant	Potential (lbs/hr)	Unrestricted Potential (tons/yr)	Potential Limited (tons/yr)	Actual Emissions (tons/yr)
Equipment	Conveyor	EQUI 184	EU351	Step III 044 Conveyor Vent	Particulate Matter	3.65	16	16	
					PM < 2.5 micron	1.21	5.28	5.28	
					PM < 10 micron	3.21	14.08	14.08	
		EQUI 185	EU353	Step III 044 Conveyor Vent	Particulate Matter	3.65	16	16	
					PM < 2.5 micron	1.21	5.28	5.28	
					PM < 10 micron	3.21	14.08	14.08	
		EQUI 186	EU355	Step III 044 Conveyor Vent	Particulate Matter	3.65	16	16	
					PM < 2.5 micron	1.21	5.28	5.28	
					PM < 10 micron	3.21	14.08	14.08	
		EQUI 187	EU357	Step III 044 Conveyor Vent	Particulate Matter	3.65	16	16	
					PM < 2.5 micron	1.21	5.28	5.28	
					PM < 10 micron	3.21	14.08	14.08	
		EQUI 240	EU191	Conveyor Transfer 009-020	Particulate Matter	0.45	39.96	1.99	
					PM < 2.5 micron	0.33	12.23	1.44	
					PM < 10 micron	0.5	34.2	2.17	
		EQUI 241	EU192	Conveyor Transfer 009-020	Particulate Matter	0.45	39.96	1.99	
					PM < 2.5 micron	0.33	12.23	1.44	
					PM < 10 micron	0.5	34.2	2.17	
		EQUI 272	EU285	L5 Conveyor Transfer Feeder (B4 L5 hygiene)	Particulate Matter	1.94	170.98	9.1	
					PM < 2.5 micron	2.88	58.79	13.06	
					PM < 10 micron	3.6	152.82	16.41	
		EQUI 275	EU394	Limestone Dump Pocket	Particulate Matter	13.71	9,237.62	60.04	
					PM < 2.5 micron	6.66	2,772.74	29.17	
					PM < 10 micron	12.46	7,853.43	54.57	
		EQUI 284	EU105	Conveyor Transfer 008-009	Particulate Matter	0.56	49	2.44	
					PM < 2.5 micron	0.4	14.99	1.76	
					PM < 10 micron	0.61	41.94	2.66	
		EQUI 288	EU112	Conveyor Transfer 003	Particulate Matter	0.56	49	2.44	
					PM < 2.5 micron	0.4	14.99	1.76	
					PM < 10 micron	0.61	41.94	2.66	
		EQUI 289	EU113	Conveyor Transfer 003	Particulate Matter	0.56	49	2.44	
					PM < 2.5 micron	0.4	14.99	1.76	
					PM < 10 micron	0.61	41.94	2.66	
		EQUI 290	EU115	Conveyor Transfer 003-004	Particulate Matter	0.56	49	2.44	
					PM < 2.5 micron	0.4	14.99	1.76	
					PM < 10 micron	0.61	41.94	2.66	
		EQUI 309	EU140	Conveyor Transfer 005-006	Particulate Matter	0.55	369.65	2.4	
					PM < 2.5 micron	0.32	111.18	1.4	
					PM < 10 micron	0.55	314.49	2.41	
		EQUI 310	EU141	Conveyor Transfer 005-006	Particulate Matter	0.55	369.65	2.4	
					PM < 2.5 micron	0.32	111.18	1.4	
					PM < 10 micron	0.55	314.49	2.41	
		EQUI 313	EU144	Conveyor Transfer 009-020	Particulate Matter	0.22	18.97	0.94	
					PM < 2.5 micron	0.16	5.8	0.68	
					PM < 10 micron	0.24	16.24	1.03	
		EQUI 314	EU145	Conveyor Transfer 009-020	Particulate Matter	0.3	26.02	1.3	
					PM < 2.5 micron	0.21	7.96	0.94	
					PM < 10 micron	0.32	22.27	1.41	
		EQUI 315	EU267	L4 Conveyor Transfer 041/046 to 042 Belts	Particulate Matter	0.18	16.08	0.8	
					PM < 2.5 micron	0.13	4.93	0.58	
					PM < 10 micron	0.2	13.77	0.88	
		EQUI 318	EU034	Conveyor Transfer 005-006	Particulate Matter	0.77	108.64	3.38	
					PM < 2.5 micron	0.46	16.7	2.04	
					PM < 10 micron	0.74	55.81	3.25	
		EQUI 319	EU036	Conveyor Transfer 010-01	Particulate Matter	0.06	47.19	0.27	
					PM < 2.5 micron	0.02	7.11	0.1	
					PM < 10 micron	0.04	24.1	0.19	
		EQUI 320	EU039	Conveyor Transfer 010-01	Particulate Matter	0.23	176.98	1.02	
					PM < 2.5 micron	0.09	26.67	0.39	
					PM < 10 micron	0.16	90.38	0.71	
		EQUI 321	EU041	Conveyor Transfer 004-005	Particulate Matter	0.31	239.4	1.38	
					PM < 2.5 micron	0.12	36.08	0.52	
					PM < 10 micron	0.22	122.26	0.96	
		EQUI 322	EU043	Conveyor Transfer 004-005	Particulate Matter	0.54	413.52	2.38	
					PM < 2.5 micron	0.21	62.31	0.91	
					PM < 10 micron	0.38	211.18	1.65	
		EQUI 323	EU045	Conveyor Transfer 004-005	Particulate Matter	0.54	413.52	2.38	
					PM < 2.5 micron	0.21	62.31	0.91	
					PM < 10 micron	0.38	211.18	1.65	
		EQUI 324	EU047	Conveyor Transfer 011-02/03	Particulate Matter	1.03	144.86	4.51	
					PM < 2.5 micron	0.62	22.27	2.71	
					PM < 10 micron	0.99	74.42	4.34	
		EQUI 326	EU052	Conveyor Transfer 008 to 009	Particulate Matter	0.56	376.9	2.45	
					PM < 2.5 micron	0.33	113.36	1.42	
					PM < 10 micron	0.56	320.66	2.46	
		EQUI 330	EU059	Conveyor Transfer 005 to 006	Particulate Matter	0.49	332.69	2.16	
					PM < 2.5 micron	0.29	100.07	1.26	
					PM < 10 micron	0.5	283.04	2.17	

PTE by SI

AI ID (Name): 2476 (US Steel Corp - MinnTac)

Activity: IND20070001

SI Category	SI Type	Subject Item ID	Delta Designation	Description	Pollutant	Potential (lbs/hr)	Unrestricted Potential (tons/yr)	Potential Limited (tons/yr)	Actual Emissions (tons/yr)
Equipment	Conveyor	EQUI 331	EU061	Conveyor Transfer 003 to 004	Particulate Matter	0.24	158.84	1.03	
					PM < 2.5 micron	0.14	47.77	0.6	
					PM < 10 micron	0.24	135.13	1.04	
		EQUI 332	EU063	Conveyor Transfer 003 to 004	Particulate Matter	0.24	158.84	1.03	
					PM < 2.5 micron	0.14	47.77	0.6	
					PM < 10 micron	0.24	135.13	1.04	
		EQUI 333	EU064	Conveyor Transfer 003 to 004	Particulate Matter	0.24	158.84	1.03	
					PM < 2.5 micron	0.14	47.77	0.6	
					PM < 10 micron	0.24	135.13	1.04	
		EQUI 342	EU098	Conveyor Transfer 008 to 009	Particulate Matter	0.21	18.62	0.93	
					PM < 2.5 micron	0.15	5.7	0.67	
					PM < 10 micron	0.23	15.93	1.01	
		EQUI 343	EU100	Conveyor Transfer 008 to 009	Particulate Matter	0.47	41.69	2.08	
					PM < 2.5 micron	0.34	12.76	1.5	
					PM < 10 micron	0.52	35.69	2.26	
		EQUI 347	EU221	L3 Grate Feed	Particulate Matter	1.03	90.46	4.51	
					PM < 2.5 micron	0.75	27.71	3.28	
					PM < 10 micron	1.13	77.46	4.94	
		EQUI 348	EU222	L3 Grate Discharge	Particulate Matter	1.03	133.29	4.51	
					PM < 2.5 micron	0.69	24.6	3.01	
					PM < 10 micron	1.03	71.26	4.49	
		EQUI 352	EU231	L3 041/046 Conveyor Belt Vent	Particulate Matter	1.13	4.94	4.94	
					PM < 2.5 micron	0.26	1.13	1.13	
					PM < 10 micron	0.65	2.86	2.86	
		EQUI 353	EU233	S1 Conveyor Transfer 042-043	Particulate Matter	0.51	45.23	2.25	
					PM < 2.5 micron	0.37	13.84	1.63	
					PM < 10 micron	0.56	38.72	2.46	
		EQUI 354	EU234	L3 Conveyor Transfer 041-042	Particulate Matter	0.51	45.23	2.25	
					PM < 2.5 micron	0.37	13.84	1.63	
					PM < 10 micron	0.56	38.72	2.46	
		EQUI 368	EU258	L4 Grate Discharge	Particulate Matter	0.96	124.4	4.2	
					PM < 2.5 micron	0.64	22.96	2.81	
					PM < 10 micron	0.96	66.5	4.19	
		EQUI 372	EU266	L4 Conveyor Transfer 041/046 to 042 Belts	Particulate Matter	0.18	16.08	0.8	
					PM < 2.5 micron	0.13	4.93	0.58	
					PM < 10 micron	0.2	13.77	0.88	
		EQUI 377	EU035	Conveyor Transfer 005-006	Particulate Matter	0.77	108.64	3.38	
					PM < 2.5 micron	0.46	16.7	2.04	
					PM < 10 micron	0.74	55.81	3.25	
		EQUI 378	EU042	Conveyor Transfer 004-005	Particulate Matter	0.54	413.52	2.38	
					PM < 2.5 micron	0.21	62.31	0.91	
					PM < 10 micron	0.38	211.18	1.65	
		EQUI 379	EU044	Conveyor Transfer 004-005	Particulate Matter	0.43	326.46	1.88	
					PM < 2.5 micron	0.16	49.19	0.71	
					PM < 10 micron	0.3	166.72	1.3	
		EQUI 380	EU046	Conveyor Transfer 004-005	Particulate Matter	0.54	413.52	2.38	
					PM < 2.5 micron	0.21	62.31	0.91	
					PM < 10 micron	0.38	211.18	1.65	
		EQUI 381	EU053	Conveyor Transfer 008 to 009	Particulate Matter	0.38	258.44	1.68	
					PM < 2.5 micron	0.22	77.73	0.98	
					PM < 10 micron	0.39	219.88	1.69	
		EQUI 383	EU058	Conveyor Transfer 005 to 006	Particulate Matter	0.56	374.27	2.43	
					PM < 2.5 micron	0.32	112.57	1.41	
					PM < 10 micron	0.56	318.42	2.44	
		EQUI 384	EU060	Conveyor Transfer 005 to 006	Particulate Matter	0.49	332.69	2.16	
					PM < 2.5 micron	0.29	100.07	1.26	
					PM < 10 micron	0.5	283.04	2.17	
		EQUI 385	EU062	Conveyor Transfer 003 to 004	Particulate Matter	0.24	158.84	1.03	
					PM < 2.5 micron	0.14	47.77	0.6	
					PM < 10 micron	0.24	135.13	1.04	
		EQUI 393	EU146	Conveyor Transfer 009-020	Particulate Matter	0.22	18.97	0.94	
					PM < 2.5 micron	0.16	5.8	0.68	
					PM < 10 micron	0.24	16.24	1.03	
		EQUI 394	EU147	Conveyor Transfer 009-020	Particulate Matter	0.22	18.97	0.94	
					PM < 2.5 micron	0.16	5.8	0.68	
					PM < 10 micron	0.24	16.24	1.03	
		EQUI 395	EU193	Conveyor Transfer 009-020	Particulate Matter	0.45	39.96	1.99	
					PM < 2.5 micron	0.33	12.23	1.44	
					PM < 10 micron	0.5	34.2	2.17	
		EQUI 678	Null	Conveyor Transfer HPGR	Particulate Matter	0.09	0.38	0.38	
					PM < 2.5 micron	0.01	0.04	0.04	
					PM < 10 micron	0.03	0.12	0.12	
		EQUI 679	Null	Conveyor Transfer HPGR	Particulate Matter	0.11	0.48	0.48	
					PM < 2.5 micron	0.01	0.04	0.04	
					PM < 10 micron	0.04	0.16	0.16	
		EQUI 680	Null	Conveyor Transfer HPGR	Particulate Matter	0.2	0.85	0.85	
					PM < 2.5 micron	0.02	0.08	0.08	
					PM < 10 micron	0.06	0.28	0.28	

PTE by SI

AI ID (Name): 2476 (US Steel Corp - MinnTac)

Activity: IND20070001

SI Category	SI Type	Subject Item ID	Delta Designation	Description	Pollutant	Potential (lbs/hr)	Unrestricted Potential (tons/yr)	Potential Limited (tons/yr)	Actual Emissions (tons/yr)
Equipment	Conveyor	EQUI 681	Null	Conveyor Transfer HPGR	Particulate Matter	0.2	0.85	0.85	
					PM < 2.5 micron	0.02	0.08	0.08	
					PM < 10 micron	0.06	0.28	0.28	
		EQUI 682	Null	HPGR Grinder	Particulate Matter	1.67	7.33	7.33	
					PM < 2.5 micron	0.14	0.61	0.61	
					PM < 10 micron	0.75	3.3	3.3	
		EQUI 683	Null	Conveyor Transfer HPGR	Particulate Matter	0.2	0.85	0.85	
					PM < 2.5 micron	0.02	0.08	0.08	
					PM < 10 micron	0.06	0.28	0.28	
		EQUI 685	Null	Coal Day Bin/Conveyor Transfer	Particulate Matter	0.04	30	0.16	
					PM < 2.5 micron	7.76e-08	2.15	0.02	
					PM < 10 micron	0.02	14.19	0.08	
		EQUI 697	Null	Conveyor Transfer	Particulate Matter	4.86	21.27	21.27	
					PM < 2.5 micron	1.7	7.44	7.44	
					PM < 10 micron	4.37	19.14	19.14	
		EQUI 698	Null	Conveyor Transfer	Particulate Matter	4.86	21.27	21.27	
					PM < 2.5 micron	1.7	7.44	7.44	
					PM < 10 micron	4.37	19.14	19.14	
		EQUI 699	Null	Conveyor Transfer	Particulate Matter	4.86	21.27	21.27	
					PM < 2.5 micron	1.7	7.44	7.44	
					PM < 10 micron	4.37	19.14	19.14	
		EQUI 700	Null	Conveyor Transfer	Particulate Matter	4.86	21.27	21.27	
					PM < 2.5 micron	1.7	7.44	7.44	
					PM < 10 micron	4.37	19.14	19.14	
		EQUI 701	Null	Conveyor Transfer	Particulate Matter	4.86	21.27	21.27	
					PM < 2.5 micron	1.7	7.44	7.44	
					PM < 10 micron	4.37	19.14	19.14	
		EQUI 702	Null	Conveyor Transfer	Particulate Matter	4.86	21.27	21.27	
					PM < 2.5 micron	1.6	6.99	6.99	
					PM < 10 micron	4.27	18.69	18.69	
	Cooler	EQUI 41	EU284	L5 Pellet Cooler Vent Stack	Particulate Matter	46	201.5	201.5	
					PM < 2.5 micron	13.12	57.45	57.45	
					PM < 10 micron	29.22	127.97	127.97	
		EQUI 42	EU286	L5 Cooler Discharge / Fines Conveyor	Particulate Matter	1.47	129.67	6.46	
					PM < 2.5 micron	2.19	44.58	9.57	
					PM < 10 micron	2.73	115.9	11.95	
		EQUI 147	EU228	L3 Cooler Discharge	Particulate Matter	1.65	144.74	7.21	
					PM < 2.5 micron	1.22	44.4	5.32	
					PM < 10 micron	1.82	124.01	7.97	
		EQUI 267	EU397	L6 Pellet Cooler Vent Stack	Particulate Matter	46	201.5	201.5	
					PM < 2.5 micron	12	52.67	52.67	
					PM < 10 micron	28.12	123.18	123.18	
		EQUI 268	EU398	L7 Pellet Cooler Vent Stack	Particulate Matter	46	201.5	201.5	
					PM < 2.5 micron	11.09	48.57	48.57	
					PM < 10 micron	27.2	119.08	119.08	
		EQUI 350	EU227	L3 Cooler Vent Stack	Particulate Matter	43	188.34	188.34	
					PM < 2.5 micron	10.3	45.13	45.13	
					PM < 10 micron	25.35	111	111	
		EQUI 370	EU263	L4 Pellet Cooler Vent Stack	Particulate Matter	46	201.5	201.5	
					PM < 2.5 micron	13.27	58.13	58.13	
					PM < 10 micron	29.37	128.65	128.65	
		EQUI 371	EU265	L4 Cooler Discharge / Fines Conveyor	Particulate Matter	1.47	129.67	6.46	
					PM < 2.5 micron	2.19	44.58	9.57	
					PM < 10 micron	2.73	115.9	11.95	
	Crusher	EQUI 5	EU097	Secondary Crusher L10	Particulate Matter	1.43	126.05	6.28	
					PM < 2.5 micron	1	38.41	4.37	
					PM < 10 micron	1.52	107.73	6.68	
		EQUI 9	EU106	Secondary Crusher L11	Particulate Matter	1.8	158.31	7.88	
					PM < 2.5 micron	1.25	48.24	5.49	
					PM < 10 micron	1.92	135.31	8.39	
		EQUI 10	EU109	Secondary Crusher L14	Particulate Matter	1.8	158.31	7.88	
					PM < 2.5 micron	1.25	48.24	5.49	
					PM < 10 micron	1.92	135.31	8.39	
		EQUI 47	EU013	Step I Coarse Crusher	Particulate Matter	4.46	3,395.18	19.52	
					PM < 2.5 micron	1.74	511.81	7.63	
					PM < 10 micron	3.14	1,734.08	13.74	
		EQUI 48	EU017	Step III Coarse Crusher	Particulate Matter	5.28	4,021.98	23.13	
					PM < 2.5 micron	2.06	606.3	9.04	
					PM < 10 micron	3.72	2,054.21	16.28	
		EQUI 55	EU075	Tertiary Crusher L7	Particulate Matter	1.29	866.37	5.63	
					PM < 2.5 micron	0.74	260.56	3.25	
					PM < 10 micron	1.29	737.06	5.63	
		EQUI 56	EU076	Tertiary Crusher L8	Particulate Matter	1.29	866.37	5.63	
					PM < 2.5 micron	0.74	260.56	3.25	
					PM < 10 micron	1.29	737.06	5.63	
		EQUI 57	EU077	Tertiary Crusher L9	Particulate Matter	1.29	866.37	5.63	
					PM < 2.5 micron	0.74	260.56	3.25	
					PM < 10 micron	1.29	737.06	5.63	

PTE by SI

AI ID (Name): 2476 (US Steel Corp - MinnTac)

Activity: IND20070001

SI Category	SI Type	Subject Item ID	Delta Designation	Description	Pollutant	Potential (lbs/hr)	Unrestricted Potential (tons/yr)	Potential Limited (tons/yr)	Actual Emissions (tons/yr)
Equipment	Crusher	EQUI 58	EU078	Tertiary Crusher L10	Particulate Matter	1.29	866.37	5.63	
					PM < 2.5 micron	0.74	260.56	3.25	
					PM < 10 micron	1.29	737.06	5.63	
		EQUI 59	EU079	Tertiary Crusher L11	Particulate Matter	1.29	866.37	5.63	
					PM < 2.5 micron	0.74	260.56	3.25	
					PM < 10 micron	1.29	737.06	5.63	
		EQUI 60	EU080	Tertiary Crusher L12	Particulate Matter	1.29	866.37	5.63	
					PM < 2.5 micron	0.74	260.56	3.25	
					PM < 10 micron	1.29	737.06	5.63	
		EQUI 61	EU081	Tertiary Crusher L13	Particulate Matter	1.29	866.37	5.63	
					PM < 2.5 micron	0.74	260.56	3.25	
					PM < 10 micron	1.29	737.06	5.63	
		EQUI 62	EU082	Tertiary Crusher L14	Particulate Matter	1.29	866.37	5.63	
					PM < 2.5 micron	0.74	260.56	3.25	
					PM < 10 micron	1.29	737.06	5.63	
		EQUI 63	EU083	Tertiary Crusher L15	Particulate Matter	1.29	866.37	5.63	
					PM < 2.5 micron	0.74	260.56	3.25	
					PM < 10 micron	1.29	737.06	5.63	
		EQUI 64	EU084	Tertiary Crusher L16	Particulate Matter	1.29	866.37	5.63	
					PM < 2.5 micron	0.74	260.56	3.25	
					PM < 10 micron	1.29	737.06	5.63	
		EQUI 72	EU015	Step II Coarse Crusher	Particulate Matter	4.46	3,395.18	19.52	
					PM < 2.5 micron	1.74	511.81	7.63	
					PM < 10 micron	3.14	1,734.08	13.74	
		EQUI 283	EU103	Secondary Crusher L5	Particulate Matter	1.58	138.71	6.91	
					PM < 2.5 micron	1.1	42.26	4.81	
					PM < 10 micron	1.68	118.56	7.35	
		EQUI 285	EU107	Secondary Crusher L12	Particulate Matter	1.8	158.31	7.88	
					PM < 2.5 micron	1.25	48.24	5.49	
					PM < 10 micron	1.92	135.31	8.39	
		EQUI 286	EU108	Secondary Crusher L13	Particulate Matter	1.8	158.31	7.88	
					PM < 2.5 micron	1.25	48.24	5.49	
					PM < 10 micron	1.92	135.31	8.39	
		EQUI 287	EU110	Secondary Crusher L15	Particulate Matter	1.78	156.81	7.81	
					PM < 2.5 micron	1.24	47.78	5.44	
					PM < 10 micron	1.9	134.02	8.31	
		EQUI 297	EU128	Tertiary Crusher L18	Particulate Matter	1.8	158.31	7.88	
					PM < 2.5 micron	1.29	48.4	5.65	
					PM < 10 micron	1.95	135.47	8.55	
		EQUI 298	EU129	Tertiary Crusher L19	Particulate Matter	1.8	158.31	7.88	
					PM < 2.5 micron	1.29	48.4	5.65	
					PM < 10 micron	1.95	135.47	8.55	
		EQUI 299	EU130	Tertiary Crusher L20	Particulate Matter	1.8	158.31	7.88	
					PM < 2.5 micron	1.29	48.4	5.65	
					PM < 10 micron	1.95	135.47	8.55	
		EQUI 300	EU131	Tertiary Crusher L21	Particulate Matter	1.8	158.31	7.88	
					PM < 2.5 micron	1.29	48.4	5.65	
					PM < 10 micron	1.95	135.47	8.55	
		EQUI 301	EU132	Tertiary Crusher L22	Particulate Matter	1.8	158.31	7.88	
					PM < 2.5 micron	1.29	48.4	5.65	
					PM < 10 micron	1.95	135.47	8.55	
		EQUI 303	EU134	Tertiary Crusher L24	Particulate Matter	1.8	158.31	7.88	
					PM < 2.5 micron	1.29	48.4	5.65	
					PM < 10 micron	1.95	135.47	8.55	
		EQUI 304	EU135	Tertiary Crusher L25	Particulate Matter	1.8	158.3	7.88	
					PM < 2.5 micron	1.29	48.4	5.65	
					PM < 10 micron	1.95	135.5	8.55	
		EQUI 305	EU136	Tertiary Crusher L26	Particulate Matter	1.8	158.31	7.88	
					PM < 2.5 micron	1.29	48.4	5.65	
					PM < 10 micron	1.95	135.47	8.55	
		EQUI 327	EU054	Secondary Crusher L1	Particulate Matter	1.54	1,039.65	6.76	
					PM < 2.5 micron	0.86	312.53	3.76	
					PM < 10 micron	1.51	884.34	6.61	
		EQUI 328	EU055	Secondary Crusher L2	Particulate Matter	1.54	135.7	6.76	
					PM < 2.5 micron	1.07	41.35	4.71	
					PM < 10 micron	1.64	115.98	7.19	
		EQUI 329	EU057	Secondary Crusher L4	Particulate Matter	1.54	135.7	6.76	
					PM < 2.5 micron	1.07	41.35	4.71	
					PM < 10 micron	1.64	115.98	7.19	
		EQUI 335	EU069	Tertiary Crusher L1	Particulate Matter	1.29	866.37	5.63	
					PM < 2.5 micron	0.74	260.56	3.25	
					PM < 10 micron	1.29	737.06	5.63	
		EQUI 336	EU071	Tertiary Crusher L3	Particulate Matter	1.29	866.37	5.63	
					PM < 2.5 micron	0.74	260.56	3.25	
					PM < 10 micron	1.29	737.06	5.63	
		EQUI 337	EU073	Tertiary Crusher L5	Particulate Matter	1.29	866.37	5.63	
					PM < 2.5 micron	0.74	260.56	3.25	
					PM < 10 micron	1.29	737.06	5.63	

PTE by SI

AI ID (Name): 2476 (US Steel Corp - MinnTac)

Activity: IND20070001

SI Category	SI Type	Subject Item ID	Delta Designation	Description	Pollutant	Potential (lbs/hr)	Unrestricted Potential (tons/yr)	Potential Limited (tons/yr)	Actual Emissions (tons/yr)
Equipment	Crusher	EQUI 338	EU074	Tertiary Crusher L6	Particulate Matter	1.29	866.37	5.63	
					PM < 2.5 micron	0.74	260.56	3.25	
					PM < 10 micron	1.29	737.06	5.63	
		EQUI 339	EU093	Secondary Crusher L6	Particulate Matter	1.47	129.06	6.43	
					PM < 2.5 micron	1.02	39.32	4.48	
					PM < 10 micron	1.56	110.31	6.84	
		EQUI 340	EU095	Secondary Crusher L8	Particulate Matter	1.43	126.05	6.28	
					PM < 2.5 micron	1	38.41	4.37	
					PM < 10 micron	1.52	107.73	6.68	
		EQUI 341	EU096	Secondary Crusher L9	Particulate Matter	1.46	128.46	6.4	
					PM < 2.5 micron	1.02	39.14	4.46	
					PM < 10 micron	1.55	109.79	6.81	
		EQUI 382	EU056	Secondary Crusher L3	Particulate Matter	1.54	135.7	6.76	
					PM < 2.5 micron	1.07	41.35	4.71	
					PM < 10 micron	1.64	115.98	7.19	
		EQUI 388	EU070	Tertiary Crusher L2	Particulate Matter	1.29	866.37	5.63	
					PM < 2.5 micron	0.74	260.56	3.25	
					PM < 10 micron	1.29	737.06	5.63	
		EQUI 389	EU072	Tertiary Crusher L4	Particulate Matter	1.29	866.37	5.63	
					PM < 2.5 micron	0.74	260.56	3.25	
					PM < 10 micron	1.29	737.06	5.63	
		EQUI 390	EU094	Secondary Crusher L7	Particulate Matter	1.43	126.05	6.28	
					PM < 2.5 micron	1	38.41	4.37	
					PM < 10 micron	1.52	107.73	6.68	
		EQUI 673	EU402	Tertiary Crusher Line 28 New	Particulate Matter	1.8	158.31	7.88	
					PM < 2.5 micron	1.29	48.4	5.65	
					PM < 10 micron	1.95	135.47	8.55	
		EQUI 674	EU405	Replacement Tertiary Crusher L23 (Metso)	Particulate Matter	1.8	158.31	7.88	
					PM < 2.5 micron	1.29	48.4	5.65	
					PM < 10 micron	1.95	135.47	8.55	
		EQUI 675	EU406	Replacement Tertiary Crusher L27 (Metso)	Particulate Matter	1.8	158.31	7.88	
					PM < 2.5 micron	1.29	48.4	5.65	
					PM < 10 micron	1.95	135.47	8.55	
	Feeder	EQUI 206	EU022	Step I Coarse Crusher Pan Feeders	Particulate Matter	1.03	144.86	4.51	
					PM < 2.5 micron	0.63	22.31	2.76	
					PM < 10 micron	1	74.46	4.38	
		EQUI 207	EU023	Step I Coarse Crusher Pan Feeders	Particulate Matter	1.03	144.86	4.51	
					PM < 2.5 micron	0.63	22.31	2.76	
					PM < 10 micron	1	74.46	4.38	
		EQUI 208	EU024	Step II Coarse Crusher Pan Feeders	Particulate Matter	1.03	144.86	4.51	
					PM < 2.5 micron	0.63	22.31	2.76	
					PM < 10 micron	1	74.46	4.38	
		EQUI 281	EU026	Step III Coarse Crusher Pan Feeders	Particulate Matter	0.56	78.47	2.44	
					PM < 2.5 micron	0.34	12.09	1.49	
					PM < 10 micron	0.54	40.33	2.37	
		EQUI 351	EU229	L3 Feeder 041/046 Belts	Particulate Matter	1.03	90.46	4.51	
					PM < 2.5 micron	0.75	27.71	3.28	
					PM < 10 micron	1.13	77.46	4.94	
		EQUI 374	EU025	Step II Coarse Crusher Pan Feeders	Particulate Matter	1.03	144.86	4.51	
					PM < 2.5 micron	0.63	22.31	2.76	
					PM < 10 micron	1	74.46	4.38	
		EQUI 375	EU027	Step III Coarse Crusher Pan Feeders	Particulate Matter	0.56	78.47	2.44	
					PM < 2.5 micron	0.34	12.09	1.49	
					PM < 10 micron	0.54	40.33	2.37	
	Furnace	EQUI 282	EU028	Zinc Melt Furnace	Arsenic compounds	3.81e-07	1.67e-06	1.67e-06	
					Beryllium Compounds	2.29e-08	1e-07	1e-07	
					Cadmium compounds	2.1e-06	9.18e-06	9.18e-06	
					Carbon Dioxide	163.64	716.76	716.76	
					Carbon Dioxide Equivalent	163.8	717.46	717.46	
					Carbon Monoxide	0.16	0.7	0.7	
					Chromium compounds	2.67e-06	1.17e-05	1.17e-05	
					Cobalt compounds	1.6e-07	7.01e-07	7.01e-07	
					Formaldehyde	0.000143	0.000626	0.000626	
					HAPs - Total			0.016	
					Hexane	0.00343	0.015	0.015	
					Manganese compounds	7.24e-07	3.17e-06	3.17e-06	
					Mercury Compounds	4.95e-07	2.17e-06	2.17e-06	
					Methane	0	0.01	0.01	
					Naphthalene	1.16e-06	5.09e-06	5.09e-06	
					Nickel compounds	4e-06	1.75e-05	1.75e-05	
					Nitrogen Oxides	0.19	0.83	0.83	
					Particulate Matter	0	0.02	0.02	
					PM < 2.5 micron	0.01	0.06	0.06	
					PM < 10 micron	0.01	0.06	0.06	
					Selenium compounds	4.57e-08	2e-07	2e-07	
					Sulfur Dioxide	0	0.01	0.01	
					Toluene	6.48e-06	2.84e-05	2.84e-05	
					Volatile Organic Compounds	0.01	0.05	0.05	

PTE by SI

AI ID (Name): 2476 (US Steel Corp - MinnTac)

Activity: IND20070001

SI Category	SI Type	Subject Item ID	Delta Designation	Description	Pollutant	Potential (lbs/hr)	Unrestricted Potential (tons/yr)	Potential Limited (tons/yr)	Actual Emissions (tons/yr)
Equipment	Furnace	EQUI 311	EU142	Zinc Melt Furnace	Arsenic compounds	1.28e-05	5.61e-05	5.61e-05	
					Beryllium Compounds	0.00027	0.00118	0.00118	
					Cadmium compounds	3.86e-06	1.69e-05	1.69e-05	
					Carbon Dioxide	226.08	990.24	990.24	
					Carbon Dioxide Equivalent	226.85	993.6	993.6	
					Carbon Monoxide	0.05	0.21	0.21	
					Chromium compounds	8.2e-06	3.59e-05	3.59e-05	
					Formaldehyde	0.00032	0.0014	0.0014	
					HAPs - Total			0.007	
					Manganese compounds	2.91e-06	1.27e-05	1.27e-05	
					Mercury Compounds	1.1e-06	4.8e-06	4.8e-06	
					Methane	0.01	0.04	0.04	
					Nickel compounds	0.00082	0.00359	0.00359	
					Nitrogen Oxides	0.19	0.85	0.85	
					Nitrous Oxide	0	0.01	0.01	
					Particulate Matter	0.02	0.08	0.08	
					PM < 2.5 micron	0.03	0.14	0.14	
					PM < 10 micron	0.03	0.14	0.14	
					Polycyclic organic matter	3.2e-05	0.00014	0.00014	
					Sulfur Dioxide	0.7	3.06	3.06	
					Volatile Organic Compounds	0	0.01	0.01	
		EQUI 312	EU143	Zinc Melt Furnace	Arsenic compounds	1.28e-05	5.61e-05	5.61e-05	
					Beryllium Compounds	0.00027	0.00118	0.00118	
					Cadmium compounds	3.86e-06	1.69e-05	1.69e-05	
					Carbon Dioxide	226.08	990.24	990.24	
					Carbon Dioxide Equivalent	226.85	993.6	993.6	
					Carbon Monoxide	0.05	0.21	0.21	
					Chromium compounds	8.2e-06	3.59e-05	3.59e-05	
					Formaldehyde	0.00032	0.0014	0.0014	
					HAPs - Total			0.007	
					Manganese compounds	2.91e-06	1.27e-05	1.27e-05	
					Mercury Compounds	1.1e-06	4.8e-06	4.8e-06	
					Methane	0.01	0.04	0.04	
					Nickel compounds	0.00082	0.00359	0.00359	
					Nitrogen Oxides	0.19	0.85	0.85	
					Nitrous Oxide	0	0.01	0.01	
					Particulate Matter	0.02	0.08	0.08	
					PM < 2.5 micron	0.03	0.14	0.14	
					PM < 10 micron	0.03	0.14	0.14	
					Polycyclic organic matter	3.2e-05	0.00014	0.00014	
					Sulfur Dioxide	0.7	3.06	3.06	
					Volatile Organic Compounds	0	0.01	0.01	
		EQUI 317	EU031	Zinc Melt Furnace	Arsenic compounds	1.28e-05	5.61e-05	5.61e-05	
					Beryllium Compounds	0.00027	0.00118	0.00118	
					Cadmium compounds	3.86e-06	1.69e-05	1.69e-05	
					Carbon Dioxide	322.97	1,414.63	1,414.63	
					Carbon Dioxide Equivalent	324.07	1,419.43	1,419.43	
					Carbon Monoxide	0.05	0.21	0.21	
					Chromium compounds	8.2e-06	3.59e-05	3.59e-05	
					Formaldehyde	0.00032	0.0014	0.0014	
					HAPs - Total			0.007	
					Manganese compounds	2.91e-06	1.27e-05	1.27e-05	
					Mercury Compounds	1.1e-06	4.8e-06	4.8e-06	
					Methane	0.01	0.06	0.06	
					Nickel compounds	0.00082	0.00359	0.00359	
					Nitrogen Oxides	0.19	0.85	0.85	
					Nitrous Oxide	0	0.01	0.01	
					Particulate Matter	0.02	0.08	0.08	
					PM < 2.5 micron	0.03	0.14	0.14	
					PM < 10 micron	0.03	0.14	0.14	
					Polycyclic organic matter	3.2e-05	0.00014	0.00014	
					Sulfur Dioxide	0.7	3.06	3.06	
					Volatile Organic Compounds	0	0.01	0.01	
		EQUI 376	EU032	Zinc Melt Furnace	Arsenic compounds	1.28e-05	5.61e-05	5.61e-05	
					Beryllium Compounds	0.00027	0.00118	0.00118	
					Cadmium compounds	3.86e-06	1.69e-05	1.69e-05	
					Carbon Dioxide	322.97	1,414.63	1,414.63	
					Carbon Dioxide Equivalent	324.07	1,419.43	1,419.43	
					Carbon Monoxide	0.05	0.21	0.21	
					Chromium compounds	8.2e-06	3.59e-05	3.59e-05	
					Formaldehyde	0.00032	0.0014	0.0014	
					HAPs - Total			0.007	
					Manganese compounds	2.91e-06	1.27e-05	1.27e-05	
					Mercury Compounds	1.1e-06	4.8e-06	4.8e-06	
					Methane	0.01	0.06	0.06	
					Nickel compounds	0.00082	0.00359	0.00359	
					Nitrogen Oxides	0.19	0.85	0.85	
					Nitrous Oxide	0	0.01	0.01	

PTE by SI

AI ID (Name): 2476 (US Steel Corp - MinnTac)
Activity: IND20070001

SI Category	SI Type	Subject Item ID	Delta Designation	Description	Pollutant	Potential (lbs/hr)	Unrestricted Potential (tons/yr)	Potential Limited (tons/yr)	Actual Emissions (tons/yr)
Equipment	Furnace	EQUI 376	EU032	Zinc Melt Furnace	Particulate Matter	0.02	0.08	0.08	
					PM < 2.5 micron	0.03	0.14	0.14	
					PM < 10 micron	0.03	0.14	0.14	
					Polycyclic organic matter	3.2e-05	0.00014	0.00014	
					Sulfur Dioxide	0.7	3.06	3.06	
					Volatile Organic Compounds	0	0.01	0.01	
	Hopper	EQUI 278	EU300	S3 Ben storage+unloading hopper	Particulate Matter	0.18	121.29	1.6	
					PM < 2.5 micron	0.15	36.68	7.12	
					PM < 10 micron	0.23	103.39	7.8	
		EQUI 684	Null	Coal Unloading Hopper	Particulate Matter	0.04	30	0.16	
					PM < 2.5 micron	7.76e-08	2.15	0.02	
					PM < 10 micron	0.02	14.19	0.08	
	EQUI 705	EU393	Limestone Dump Pocket	Limestone Dump Pocket	Particulate Matter	13.71	9,238	60.04	
					PM < 2.5 micron	6.66	2,772	29.17	
					PM < 10 micron	12.46	7,853	54.47	
	Kiln	EQUI 3	EU315	L6 Rotary Kiln	1,1,1-Trichloroethane	0.000482	0.00211	0.00211	
					1,2-Dibromoethane (Ethylene dibromide); EDB	1.83e-05	8.01e-05	8.01e-05	
					1,2-Dichloroethane	0.00061	0.00267	0.00267	
					1,4-Dichlorobenzene (para-)	0.000336	0.00147	0.00147	
					2-Chloroacetophenone	0.000107	0.000467	0.000467	
					2-Methylnaphthalene	6.72e-06	2.94e-05	2.94e-05	
					2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1.02e-08	4.45e-08	4.45e-08	
					2,4-Dinitrotoluene	4.27e-06	1.87e-05	1.87e-05	
					3-Methylcholanthrene	5.04e-07	2.21e-06	2.21e-06	
					5-Methylchrysene	3.35e-07	1.47e-06	1.47e-06	
					7,12-Dimethylbenz[a]anthracene	4.48e-06	1.96e-05	1.96e-05	
					Acenaphthene	4.31e-05	0.000189	0.000189	
					Acenaphthylene	3.81e-06	1.67e-05	1.67e-05	
					Acetaldehyde	0.00869	0.0381	0.0381	
					Acetophenone	0.000229	0.001	0.001	
					Acrolein	0.00442	0.0194	0.0194	
					Anthracene	3.2e-06	1.4e-05	1.4e-05	
					Antimony compounds	7.85e-05	0.000344	0.000344	
					Arsenic compounds	0.0785	0.344	0.344	
					Barium	0.00123	0.0054	0.0054	
					Benzene	0.0198	0.0868	0.0868	
					Benzo(a)anthracene	8.18e-06	3.58e-05	3.58e-05	
					Benzo(b)fluoranthene	3.02e-06	1.32e-05	1.32e-05	
					Benzo(ghi)perylene	4.61e-06	2.02e-05	2.02e-05	
					Benzo(k)fluoranthene	3.02e-06	1.32e-05	1.32e-05	
					Benzo(a)pyrene	5.79e-07	2.54e-06	2.54e-06	
					Beryllium Compounds	0.000286	0.00125	0.00125	
					Biphenyl	2.59e-05	0.000114	0.000114	
					Bis(2-ethylhexyl) phthalate	0.00111	0.00487	0.00487	
					Bromoform	0.000595	0.0026	0.0026	
					Bromomethane (Methyl bromide)	0.00244	0.0107	0.0107	
					Cadmium compounds	0.000303	0.00133	0.00133	
					Carbon Dioxide	91,555.8	401,014	401,014	
					Carbon Dioxide Equivalent	92.232	403,976	403,976	
					Carbon disulfide	0.00198	0.00868	0.00868	
					Carbon Monoxide	37.4	163.7	163.7	
					Chlorobenzene (Monochlorobenzene)	0.000335	0.00147	0.00147	
					Chloroethane	0.00064	0.0028	0.0028	
					Chloroform	0.000899	0.00394	0.00394	
					Chloromethane	0.00808	0.0354	0.0354	
					Chloromethylbenzene	0.0107	0.0467	0.0467	
					Chromium compounds	0.0105	0.0458	0.0458	
					Chrysene	4.86e-06	2.13e-05	2.13e-05	
					Cobalt compounds	0.000251	0.0011	0.0011	
					Cumene (Isopropylbenzene)	8.08e-05	0.000354	0.000354	
					Cyanide compounds	0.0381	0.167	0.167	
					Dibenz[a,h]anthracene	3.41e-06	1.49e-05	1.49e-05	
					Dibenzofuran	1.66e-08	7.28e-08	7.28e-08	
					Dichloromethane (Methylene chloride)	0.00442	0.0194	0.0194	
					Dimethyl sulfate	0.000732	0.00321	0.00321	
					Ethylbenzene	0.00143	0.00628	0.00628	
					Fluoranthene	1.08e-05	4.74e-05	4.74e-05	
					Fluorene	1.39e-05	6.08e-05	6.08e-05	
					Fluorides	1.16	5.08	5.08	
					Formaldehyde	0.0673	0.295	0.295	
					HAPs - Total	24.48	107.21	107.22	
					Hexane	0.504	2.21	2.21	
					Hydrofluoric acid	4.47	19.6	19.6	
					Hydrogen Chloride	19	83.6	83.6	
					Indeno(1,2,3-cd)pyrene	4.37e-06	1.91e-05	1.91e-05	
					Isophorone	0.00884	0.0387	0.0387	
					Lead Compounds	0.0403	0.176	0.176	
					Manganese compounds	0.0324	0.142	0.142	

PTE by SI

AI ID (Name): 2476 (US Steel Corp - MinnTac)
Activity: IND20070001

SI Category	SI Type	Subject Item ID	Delta Designation	Description	Pollutant	Potential (lbs/hr)	Unrestricted Potential (tons/yr)	Potential Limited (tons/yr)	Actual Emissions (tons/yr)
Equipment	Kiln	EQUI 3	EU315	L6 Rotary Kiln	Mercury Compounds	0.00628	0.0275	0.0275	
					Methane	12.7	55.5	55.5	
					Methyl ethyl ketone (MEK)	0.00595	0.026	0.026	
					Methyl methacrylate	0.000305	0.00134	0.00134	
					Methyl-tert-butylether	0.000534	0.00234	0.00234	
					Methylhydrazine	0.00259	0.0114	0.0114	
					Naphthalene	0.00231	0.0101	0.0101	
					Nickel compounds	0.00398	0.0174	0.0174	
					Nitrogen Oxides	414	1,814	0	
					Nitrous Oxide	1.3	5.8	5.8	
					Particulate Matter	46.54	7,044	203.84	
					Phenanthrene	4.12e-05	0.00018	0.00018	
					Phenol	0.000244	0.00107	0.00107	
					Phosphorus	0.0167	0.0733	0.0733	
					PM < 2.5 micron	36.73	1,264	160.9	
					PM < 10 micron	44.86	2,518	196.5	
					Polycyclic organic matter	0.000951	0.00417	0.00417	
					Propionaldehyde	0.00579	0.0254	0.0254	
					Pyrene	8.67e-06	3.8e-05	3.8e-05	
					Selenium compounds	0.011	0.0481	0.0481	
					Styrene	0.000381	0.00167	0.00167	
					Sulfur Dioxide	125	785	549	
					Sulfuric Acid Mist	0.141	0.618	0.618	
					Tetrachloroethylene (Perchloroethylene)	0.000656	0.00287	0.00287	
					Toluene	0.0127	0.0554	0.0554	
					Total PCDD/PCDF	2.68e-08	1.17e-07	1.17e-07	
					Vinyl acetate (Acetic acid)	0.000116	0.000507	0.000507	
					Volatile Organic Compounds	8.8	38.7	38.7	
					Xylenes, Total	0.000564	0.00247	0.00247	
	EQUI 146	EU225	L3 Rotary Kiln	L3 Rotary Kiln	1,1,1-Trichloroethane	0.000265	0.00116	0.00116	
					1,4-Dichlorobenzene (para-)	0.000185	0.00081	0.00081	
					2-Methylnaphthalene	3.7e-06	1.62e-05	1.62e-05	
					3-Methylcholanthrene	2.77e-07	1.22e-06	1.22e-06	
					7,12-Dimethylbenz[a]anthracene	2.47e-06	1.08e-05	1.08e-05	
					Acenaphthene	2.37e-05	0.000104	0.000104	
					Acenaphthylene	2.84e-07	1.24e-06	1.24e-06	
					Anthracene	1.37e-06	6e-06	6e-06	
					Antimony compounds	4.32e-05	0.000189	0.000189	
					Arsenic compounds	0.0432	0.189	0.189	
					Barium	0.000678	0.00297	0.00297	
					Benzene	0.000324	0.00142	0.00142	
					Benzo(a)anthracene	4.5e-06	1.97e-05	1.97e-05	
					Benzo(b)fluoranthene	1.66e-06	7.28e-06	7.28e-06	
					Benzo(ghi)perylene	2.54e-06	1.11e-05	1.11e-05	
					Benzo(k)fluoranthene	1.66e-06	7.28e-06	7.28e-06	
					Benzo[a]pyrene	1.85e-07	8.1e-07	8.1e-07	
					Beryllium Compounds	0.000157	0.000689	0.000689	
					Cadmium compounds	0.000239	0.00105	0.00105	
					Carbon Dioxide	59,363.4	260,012	260,012	
					Carbon Dioxide Equivalent	59,963.1	262,638	262,638	
					Carbon Monoxide	23.1	101.2	101.2	
					Chromium compounds	0.00576	0.0252	0.0252	
					Chrysene	2.67e-06	1.17e-05	1.17e-05	
					Cobalt compounds	0.000202	0.000883	0.000883	
					Dibenz[a,h]anthracene	1.88e-06	8.22e-06	8.22e-06	
					Ethylbenzene	7.14e-05	0.000313	0.000313	
					Fluoranthene	5.44e-06	2.38e-05	2.38e-05	
					Fluorene	5.02e-06	2.2e-05	2.2e-05	
					Fluorides	0.842	3.69	3.69	
					Formaldehyde	0.0371	0.162	0.162	
					HAPs - Total	0.85	3.73	3.734	
					Hexane	0.277	1.22	1.22	
					Hydrofluoric acid	0.0138	0.0605	0.0605	
					Hydrogen Chloride	0.403	1.77	1.77	
					Indeno(1,2,3-cd)pyrene	2.4e-06	1.05e-05	1.05e-05	
					Lead Compounds	0.0222	0.0971	0.0971	
					Manganese compounds	0.0179	0.0782	0.0782	
					Mercury Compounds	0.00228	0.0143	0.00999	
					Methane	9.7	42.6	42.6	
					Naphthalene	0.00127	0.00556	0.00556	
					Nickel compounds	0.00219	0.00959	0.00959	
					Nitrogen Oxides	625	2,736	0	
					Nitrous Oxide	1.3	5.6	5.6	
					Particulate Matter	45.45	6,879	199	
					Phenanthrene	1.18e-05	5.17e-05	5.17e-05	
					Phosphorus	0.00922	0.0404	0.0404	
					PM < 2.5 micron	39.83	1,252	174.46	
					PM < 10 micron	47.78	2,476	209.27	

PTE by SI

AI ID (Name): 2476 (US Steel Corp - MinnTac)
Activity: IND20070001

SI Category	SI Type	Subject Item ID	Delta Designation	Description	Pollutant	Potential (lbs/hr)	Unrestricted Potential (tons/yr)	Potential Limited (tons/yr)	Actual Emissions (tons/yr)
Equipment	Kiln	EQUI 146	EU225	L3 Rotary Kiln	Polycyclic organic matter	1.36e-05	5.96e-05	5.96e-05	
					Pyrene	4.77e-06	2.09e-05	2.09e-05	
					Selenium compounds	0.00605	0.0265	0.0265	
					Sulfur Dioxide	143	895	626	
					Sulfuric Acid Mist	0.0776	0.34	0.34	
					Toluene	0.00696	0.0305	0.0305	
					Volatile Organic Compounds	5.9	26.1	26.1	
					Xylenes, Total	0.000122	0.000536	0.000536	
		EQUI 179	EU334	L7 Rotary Kiln	1,1,1-Trichloroethane	0.000482	0.00211	0.00211	
					1,2-Dibromoethane (Ethylene dibromide); EDB	1.83e-05	8.01e-05	8.01e-05	
					1,2-Dichloroethane	0.00061	0.00267	0.00267	
					1,4-Dichlorobenzene (para-)	0.000336	0.00147	0.00147	
					2-Chloroacetophenone	0.000107	0.000467	0.000467	
					2-Methylnaphthalene	6.72e-06	2.94e-05	2.94e-05	
					2,4-Dinitrotoluene	4.27e-06	1.87e-05	1.87e-05	
					3-Methylcholanthrene	5.04e-07	2.21e-06	2.21e-06	
					5-Methylchrysene	3.35e-07	1.47e-06	1.47e-06	
					7,12-Dimethylbenz[a]anthracene	4.48e-06	1.96e-05	1.96e-05	
					Acenaphthene	4.31e-05	0.000189	0.000189	
					Acenaphthylene	3.81e-06	1.67e-05	1.67e-05	
					Acetaldehyde	0.00869	0.0381	0.0381	
					Acetophenone	0.000229	0.001	0.001	
					Acrolein	0.00442	0.0194	0.0194	
					Anthracene	3.2e-06	1.4e-05	1.4e-05	
					Antimony compounds	7.85e-05	0.000344	0.000344	
					Arsenic compounds	0.0785	0.344	0.000344	
					Barium	0.00123	0.0054	0.0054	
					Benzene	0.0198	0.0868	0.0868	
					Benzo(a)anthracene	8.18e-06	3.58e-05	3.58e-05	
					Benzo(b)fluoranthene	3.02e-06	1.32e-05	1.32e-05	
					Benzo(ghi)perylene	4.61e-06	2.02e-05	2.02e-05	
					Benzo(k)fluoranthene	3.02e-06	1.32e-05	1.32e-05	
					Benzo(a)pyrene	5.79e-07	2.54e-06	2.54e-06	
					Beryllium Compounds	0.000286	0.00125	0.00125	
					Biphenyl	2.59e-05	0.000114	0.000114	
					Bis(2-ethylhexyl) phthalate	0.00111	0.00487	0.00487	
					Bromoform	0.000595	0.0026	0.0026	
					Bromomethane (Methyl bromide)	0.00244	0.0107	0.0107	
					Cadmium compounds	0.000303	0.00133	0.00133	
					Carbon Dioxide	93,792	410,809	410,809	
					Carbon Dioxide Equivalent	94,468.2	413,771	413,771	
					Carbon disulfide	0.00198	0.00868	0.00868	
					Carbon Monoxide	29.7	129.9	129.9	
					Chlorobenzene (Monochlorobenzene)	0.000335	0.00147	0.00147	
					Chloroethane	0.00064	0.0028	0.0028	
					Chloroform	0.000899	0.00394	0.00394	
					Chloromethane	0.00808	0.0354	0.0354	
					Chloromethylbenzene	0.0107	0.0467	0.0467	
					Chromium compounds	0.0105	0.0458	0.0458	
					Chrysene	4.86e-06	2.13e-05	2.13e-05	
					Cobalt compounds	0.000251	0.0011	0.0011	
					Cumene (Isopropylbenzene)	8.08e-05	0.000354	0.000354	
					Cyanide compounds	0.0381	0.167	0.167	
					Dibenz[a,h]anthracene	3.41e-06	1.49e-05	1.49e-05	
					Dibenzofuran	1.66e-08	7.28e-08	7.28e-08	
					Dichloromethane (Methylene chloride)	0.00442	0.0194	0.0194	
					Dimethyl sulfate	0.000732	0.00321	0.00321	
					Ethylbenzene	0.00143	0.00628	0.00628	
					Fluoranthene	1.08e-05	4.74e-05	4.74e-05	
					Fluorene	1.39e-05	6.08e-05	6.08e-05	
					Fluorides	0.819	3.59	3.59	
					Formaldehyde	0.0673	0.295	0.295	
					HAPs - Total	25.55	111.9	110.81	
					Hexane	0.504	2.21	2.21	
					Hydrofluoric acid	4.47	19.6	19.6	
					Hydrogen Chloride	19	83.6	83.6	
					Indeno(1,2,3-cd)pyrene	4.37e-06	1.91e-05	1.91e-05	
					Isophorone	0.00884	0.0387	0.0387	
					Lead Compounds	0.0403	0.176	0.176	
					Manganese compounds	0.0324	0.142	0.142	
					Mercury Compounds	0.00628	0.0275	0.0275	
					Methane	12.7	55.5	55.5	
					Methyl ethyl ketone (MEK)	0.00595	0.026	0.026	
					Methyl methacrylate	0.000305	0.00134	0.00134	
					Methyl-tert-butylether	0.000534	0.00234	0.00234	
					Methylhydrazine	0.00259	0.0114	0.0114	
					Naphthalene	0.00231	0.0101	0.0101	
					Nickel compounds	0.00398	0.0174	0.0174	

PTE by SI

AI ID (Name): 2476 (US Steel Corp - MinnTac)
Activity: IND20070001

SI Category	SI Type	Subject Item ID	Delta Designation	Description	Pollutant	Potential (lbs/hr)	Unrestricted Potential (tons/yr)	Potential Limited (tons/yr)	Actual Emissions (tons/yr)
Equipment	Kiln	EQUI 179	EU334	L7 Rotary Kiln	Nitrogen Oxides	528	2,314	0	
					Nitrous Oxide	1.3	5.8	5.8	
					Particulate Matter	47.28	7,156	207.1	
					Phenanthrene	4.12e-05	0.00018	0.00018	
					Phenol	0.000244	0.00107	0.00107	
					Phosphorus	0.0167	0.0733	0.0733	
					PM < 2.5 micron	37.31	1,284	163.4	
					PM < 10 micron	45.58	2,558	199.64	
					Polycyclic organic matter	0.000951	0.00417	0.00417	
					Propionaldehyde	0.00579	0.0254	0.0254	
					Pyrene	8.67e-06	3.8e-05	3.8e-05	
					Selenium compounds	0.011	0.0481	0.0481	
					Styrene	0.000381	0.00167	0.00167	
					Sulfur Dioxide	172	1,079	755	
					Sulfuric Acid Mist	0.141	0.618	0.618	
					TCDD - TE	1.02e-08	4.45e-08	4.45e-08	
					Tetrachloroethylene (Perchloroethylene)	0.000656	0.00287	0.00287	
					Toluene	0.0127	0.0554	0.0554	
					Total PCDD/PCDF	2.68e-08	1.17e-07	1.17e-07	
					Vinyl acetate (Acetic acid)	0.000116	0.000507	0.000507	
					Volatile Organic Compounds	14.2	62.2	62.2	
					Xylenes, Total	0.000564	0.00247	0.00247	
		EQUI 279	EU261	L4 Rotary Kiln	1,1,1-Trichloroethane	0.000482	0.00211	0.00211	
					1,4-Dichlorobenzene (para-)	0.000336	0.00147	0.00147	
					2-Methylnaphthalene	6.72e-06	2.94e-05	2.94e-05	
					3-Methylcholanthrene	5.04e-07	2.21e-06	2.21e-06	
					7,12-Dimethylbenz[a]anthracene	4.48e-06	1.96e-05	1.96e-05	
					Acenaphthene	4.31e-05	0.000189	0.000189	
					Acenaphthylene	5.16e-07	2.26e-06	2.26e-06	
					Anthracene	2.49e-06	1.09e-05	1.09e-05	
					Antimony compounds	6.28e-05	0.000275	0.000275	
					Arsenic compounds	0.00487	0.0213	0.0213	
					Barium	0.00123	0.0054	0.0054	
					Benzene	0.000588	0.00258	0.00258	
					Benzo(a)anthracene	8.18e-06	3.58e-05	3.58e-05	
					Benzo(b)fluoranthene	3.02e-06	1.32e-05	1.32e-05	
					Benzo(ghi)perylene	4.61e-06	2.02e-05	2.02e-05	
					Benzo(k)fluoranthene	3.02e-06	1.32e-05	1.32e-05	
					Benzo[a]pyrene	3.36e-07	1.47e-06	1.47e-06	
					Beryllium Compounds	9.94e-05	0.000435	0.000435	
					Cadmium compounds	0.000434	0.0019	0.0019	
					Carbon Dioxide	89,919.7	393,848	393,848	
					Carbon Dioxide Equivalent	90,595.9	396,810	396,810	
					Carbon Monoxide	116	508	508	
					Chromium compounds	0.00377	0.0165	0.0165	
					Chrysene	4.86e-06	2.13e-05	2.13e-05	
					Cobalt compounds	0.000366	0.0016	0.0016	
					Dibenz[a,h]anthracene	3.41e-06	1.49e-05	1.49e-05	
					Ethylbenzene	0.00013	0.000568	0.000568	
					Fluoranthene	9.88e-06	4.33e-05	4.33e-05	
					Fluorene	9.12e-06	3.99e-05	3.99e-05	
					Fluorides	2.33	10.2	10.2	
					Formaldehyde	0.0673	0.295	0.295	
					HAPs - Total	1.41	6.19	6.19	
					Hexane	0.504	2.21	2.21	
					Hydrofluoric acid	0.0251	0.11	0.11	
					Hydrogen Chloride	0.732	3.21	3.21	
					Indeno(1,2,3-cd)pyrene	4.37e-06	1.91e-05	1.91e-05	
					Lead Compounds	0.0275	0.12	0.12	
					Manganese compounds	0.0115	0.0504	0.0504	
					Mercury Compounds	0.00628	0.0275	0.0275	
					Methane	12.7	55.5	55.5	
					Naphthalene	0.00231	0.0101	0.0101	
					Nickel compounds	0.00272	0.0119	0.0119	
					Nitrogen Oxides	692	3,030	0	
					Nitrous Oxide	1.3	5.8	5.8	
					Particulate Matter	55.68	8,428	243.89	
					Phenanthrene	2.14e-05	9.38e-05	9.38e-05	
					Phosphorus	0.00576	0.0252	0.0252	
					PM < 2.5 micron	51.42	1,545	225.2	
					PM < 10 micron	61.15	3,045	267.85	
					Polycyclic organic matter	2.47e-05	0.000108	0.000108	
					Pyrene	8.67e-06	3.8e-05	3.8e-05	
					Selenium compounds	0.0045	0.0197	0.0197	
					Sulfur Dioxide	122	765	535	
					Sulfuric Acid Mist	0.141	0.618	0.618	
					Toluene	0.0127	0.0554	0.0554	
					Volatile Organic Compounds	11.1	48.7	48.7	

PTE by SI

AI ID (Name): 2476 (US Steel Corp - MinnTac)

Activity: IND20070001

SI Category	SI Type	Subject Item ID	Delta Designation	Description	Pollutant	Potential (lbs/hr)	Unrestricted Potential (tons/yr)	Potential Limited (tons/yr)	Actual Emissions (tons/yr)
Equipment	Kiln	EQUI 279	EU261	L4 Rotary Kiln	Xylenes, Total	0.000222	0.000974	0.000974	
					1,1,1-Trichloroethane	0.000482	0.00211	0.00211	
		EQUI 280	EU282	L5 Rotary Kiln	1,4-Dichlorobenzene (para-)	0.000336	0.00147	0.00147	
					2-Methylnaphthalene	6.72e-06	2.94e-05	2.94e-05	
					3-Methylcholanthrene	5.04e-07	2.21e-06	2.21e-06	
					7,12-Dimethylbenz[a]anthracene	4.48e-06	1.96e-05	1.96e-05	
					Acenaphthene	4.31e-05	0.000189	0.000189	
					Acenaphthylene	5.16e-07	2.26e-06	2.26e-06	
					Anthracene	2.49e-06	1.09e-05	1.09e-05	
					Antimony compounds	6.28e-05	0.000275	0.000275	
					Arsenic compounds	0.00487	0.0213	0.0213	
					Barium	0.00123	0.0054	0.0054	
					Benzene	0.000588	0.00258	0.00258	
					Benzo(a)anthracene	8.18e-06	3.58e-05	3.58e-05	
					Benzo(b)fluoranthene	3.02e-06	1.32e-05	1.32e-05	
					Benzo(ghi)perylene	4.61e-06	2.02e-05	2.02e-05	
					Benzo(k)fluoranthene	3.02e-06	1.32e-05	1.32e-05	
					Benzo(a)pyrene	3.36e-07	1.47e-06	1.47e-06	
					Beryllium Compounds	9.94e-05	0.000435	0.000435	
					Cadmium compounds	0.000434	0.0019	0.0019	
					Carbon Dioxide	90,431.9	396,092	396,092	
					Carbon Dioxide Equivalent	91,108.1	399,054	399,054	
					Carbon Monoxide	35.5	155.7	155.7	
					Chromium compounds	0.00377	0.0165	0.0165	
					Chrysene	4.86e-06	2.13e-05	2.13e-05	
					Cobalt compounds	0.000366	0.0016	0.0016	
					Dibenz[a,h]anthracene	3.41e-06	1.49e-05	1.49e-05	
					Ethylbenzene	0.00013	0.000568	0.000568	
					Fluoranthene	9.88e-06	4.33e-05	4.33e-05	
					Fluorene	9.12e-06	3.99e-05	3.99e-05	
					Fluorides	2.41	10.6	10.6	
					Formaldehyde	0.0673	0.295	0.295	
					HAPs - Total	1.41	6.19	6.19	
					Hexane	0.504	2.21	2.21	
					Hydrofluoric acid	0.0251	0.11	0.11	
					Hydrogen Chloride	0.732	3.21	3.21	
					Indeno[1,2,3-cd]pyrene	4.37e-06	1.91e-05	1.91e-05	
					Lead Compounds	0.0275	0.12	0.12	
					Manganese compounds	0.0115	0.0504	0.0504	
					Mercury Compounds	0.00628	0.0275	0.0275	
					Methane	12.7	55.5	55.5	
					Naphthalene	0.00231	0.0101	0.0101	
					Nickel compounds	0.00272	0.0119	0.0119	
					Nitrogen Oxides	614	2.690	0	
					Nitrous Oxide	1.3	5.8	5.8	
					Particulate Matter	55.84	8.452	244.6	
					Phenanthrene	2.14e-05	9.38e-05	9.38e-05	
					Phosphorus	0.00576	0.0252	0.0252	
					PM < 2.5 micron	51.57	1,549	225.85	
					PM < 10 micron	61.33	3,054	268.6	
					Polycyclic organic matter	2.47e-05	0.000108	0.000108	
					Pyrene	8.67e-06	3.8e-05	3.8e-05	
					Selenium compounds	0.0045	0.0197	0.0197	
					Sulfur Dioxide	114	712	498	
					Sulfuric Acid Mist	0.141	0.618	0.618	
					Toluene	0.0127	0.0554	0.0554	
					Volatile Organic Compounds	9.4	41	41	
					Xylenes, Total	0.000222	0.000974	0.000974	
	Loading-Unloading Equipment	EQUI 127	EU366	Step III Pellet Loadout	Particulate Matter	17.48	76.58	76.58	
					PM < 2.5 micron	5.96	26.1	26.1	
					PM < 10 micron	15.58	68.22	68.22	
		EQUI 359	EU243	S1,2 Bentonite Unloading	Particulate Matter	0.18	121.29	0.79	
					PM < 2.5 micron	0.34	37.51	1.49	
					PM < 10 micron	0.42	104.23	1.82	
	Material Handling Equipment	EQUI 108	EU340	Step I 043/044 Conveyor Transfer	Particulate Matter	4.86	21.27	21.27	
					PM < 2.5 micron	1.49	6.54	6.54	
					PM < 10 micron	4.16	18.24	18.24	
		EQUI 124	EU359	Step III 043/044 Conveyor Transfer	Particulate Matter	3.65	16	16	
					PM < 2.5 micron	1.21	5.28	5.28	
					PM < 10 micron	3.21	14.08	14.08	
		EQUI 125	EU361	Step III 043/044 Conveyor Transfer	Particulate Matter	3.65	16	16	
					PM < 2.5 micron	1.21	5.28	5.28	
					PM < 10 micron	3.21	14.08	14.08	
		EQUI 126	EU363	Step III 044-6/044-7 Conveyor Transfer	Particulate Matter	3.65	16	16	
					PM < 2.5 micron	1.21	5.28	5.28	
					PM < 10 micron	3.21	14.08	14.08	
		EQUI 188	EU360	Step III 043/044 Conveyor Transfer	Particulate Matter	3.65	16	16	
					PM < 2.5 micron	1.21	5.28	5.28	

PTE by SI

AI ID (Name): 2476 (US Steel Corp - MinnTac)

Activity: IND20070001

SI Category	SI Type	Subject Item ID	Delta Designation	Description	Pollutant	Potential (lbs/hr)	Unrestricted Potential (tons/yr)	Potential Limited (tons/yr)	Actual Emissions (tons/yr)
Equipment	Material Handling Equipment	EQUI 188	EU360	Step III 043/044 Conveyor Transfer	PM < 10 micron	3.21	14.08	14.08	
					Particulate Matter	3.65	16	16	
		EQUI 189	EU362	Step III 043/044 Conveyor Transfer	PM < 2.5 micron	1.21	5.28	5.28	
					PM < 10 micron	3.21	14.08	14.08	
					Particulate Matter	3.65	16	16	
		EQUI 190	EU364	Step III 044-6/044-7 Conveyor Transfer	PM < 2.5 micron	1.21	5.28	5.28	
					PM < 10 micron	3.21	14.08	14.08	
					Particulate Matter	3.65	16	16	
		EQUI 191	EU365	Step III 044-6/044-7 Conveyor Transfer	PM < 2.5 micron	1.21	5.28	5.28	
					PM < 10 micron	3.21	14.08	14.08	
					Particulate Matter	3.65	16	16	
		EQUI 266	EU396	Hill Wood Products system	Particulate Matter	0.54	81.09	2.37	
					PM < 2.5 micron	0.32	48.05	1.4	
					PM < 10 micron	0.32	48.05	1.4	
		EQUI 270	EU339	Step I 043/044 Conveyor Transfer	Particulate Matter	4.86	21.27	21.27	
					PM < 2.5 micron	1.49	6.54	6.54	
					PM < 10 micron	4.16	18.24	18.24	
		EQUI 325	EU048	Surge Pile/Reclaim 011-01	Particulate Matter	1.37	193.15	6.01	
					PM < 2.5 micron	0.83	29.69	3.62	
					PM < 10 micron	1.32	99.23	5.78	
		EQUI 704	EU395	Limestone Conveyor Transfer 2	Particulate Matter	1.57	1,058	6.88	
					PM < 2.5 micron	0.96	318.4	4.2	
					PM < 10 micron	1.62	900	7.11	
	Other Combustion	EQUI 712	Null	Burnout Oven	Carbon Monoxide	0.064	0.28	0.28	
					Nitrogen Oxides	0.076	0.334	0.334	
					Particulate Matter	0.001	0.006	0.006	
					PM < 2.5 micron	0.006	0.025	0.025	
					PM < 10 micron	0.006	0.025	0.025	
					Volatile Organic Compounds	0.004	0.018	0.018	
	Other Emission Unit	EQUI 373	EU389	Electric Shop Curing Oven (new)	Arsenic compounds	3.81e-07	1.67e-06	1.67e-06	
					Beryllium Compounds	2.29e-08	1e-07	1e-07	
					Cadmium compounds	2.1e-06	9.18e-06	9.18e-06	
					Carbon Dioxide	233.78	1,023.94	1,023.94	
					Carbon Dioxide Equivalent	234.01	1,024.94	1,024.94	
					Carbon Monoxide	0.16	0.7	0.7	
					Chromium compounds	2.67e-06	1.17e-05	1.17e-05	
					Cobalt compounds	1.6e-07	7.01e-07	7.01e-07	
					Formaldehyde	0.000143	0.000626	0.000626	
					Hexane	0.00343	0.015	0.015	
					Manganese compounds	7.24e-07	3.17e-06	3.17e-06	
					Mercury Compounds	4.95e-07	2.17e-06	2.17e-06	
					Methane	0	0.02	0.02	
					Naphthalene	1.16e-06	5.09e-06	5.09e-06	
					Nickel compounds	4e-06	1.75e-05	1.75e-05	
					Nitrogen Oxides	0.19	0.83	0.83	
					Particulate Matter	0	0.02	0.02	
					PM < 2.5 micron	0.01	0.06	0.06	
					PM < 10 micron	0.01	0.06	0.06	
					Selenium compounds	4.57e-08	2e-07	2e-07	
					Sulfur Dioxide	0	0.01	0.01	
					Toluene	6.48e-06	2.84e-05	2.84e-05	
					Volatile Organic Compounds	0.01	0.05	0.05	
	Process Heater	EQUI 255	EU401	Heaters (25 units, Ltr 8/10/01)	Carbon Monoxide	7.08	31	31	
					HAPs - Total			0.696	
					Nitrogen Oxides	8.42	36.9	36.9	
					Particulate Matter	0.16	0.7	0.7	
					PM < 2.5 micron	0.64	2.8	2.8	
					PM < 10 micron	0.64	2.8	2.8	
					Sulfur Dioxide	0.05	0.22	0.22	
					Toluene	0.000286	0.00125	0.00125	
	Reciprocating IC Engine	EQUI 274	EU216	Diesel Generator	Volatile Organic Compounds	0.46	2.03	2.03	
					1,3-Butadiene	0.000235	5.88e-05	5.88e-05	
					Acenaphthene	2.82e-05	7.04e-06	7.04e-06	
					Acenaphthylene	5.56e-05	1.39e-05	1.39e-05	
					Acetaldehyde	0.000152	3.79e-05	3.79e-05	
					Acrolein	4.74e-05	1.19e-05	1.19e-05	
					Anthracene	7.4e-06	1.85e-06	1.85e-06	
					Benzo(a)anthracene	3.74e-06	9.36e-07	9.36e-07	
					Benzo(b)fluoranthene	6.68e-06	1.67e-06	1.67e-06	
					Benzo(ghi)perylene	3.35e-06	8.37e-07	8.37e-07	
					Benzo(a)pyrene	1.55e-06	3.87e-07	3.87e-07	
					Carbon Dioxide	981.58	245.4	245.4	
					Carbon Dioxide Equivalent	993.3	248.33	248.33	
					Carbon Monoxide	5.12	1.28	1.28	
					Chrysene	9.21e-06	2.3e-06	2.3e-06	
					Dibenz[a,h]anthracene	2.08e-06	5.21e-07	5.21e-07	
					Fluoranthene	2.43e-06	6.07e-06	6.07e-06	
					Fluorene	7.71e-05	1.93e-05	1.93e-05	
					Formaldehyde	0.000475	0.000119	0.000119	

PTE by SI

AI ID (Name): 2476 (US Steel Corp - MinnTac)

Activity: IND20070001

SI Category	SI Type	Subject Item ID	Delta Designation	Description	Pollutant	Potential (lbs/hr)	Unrestricted Potential (tons/yr)	Potential Limited (tons/yr)	Actual Emissions (tons/yr)
Equipment	Reciprocating IC Engine	EQUI 274	EU216	Diesel Generator	HAPs - Total			0.0026	
					Indeno(1,2,3-cd)pyrene	2.49e-06	6.23e-07	6.23e-07	
					Methane	0.05	0.01	0.01	
					Naphthalene	0.000783	0.000196	0.000196	
					Nitrogen Oxides	19.26	4.82	4.82	
					Nitrous Oxide	0.01	0	0	
					Particulate Matter	0.42	0.1	0.1	
					Phenanthrene	0.000246	6.14e-05	6.14e-05	
					PM < 2.5 micron	0.34	0.09	0.09	
					PM < 10 micron	0.34	0.09	0.09	
					Propylene oxide	0.0168	0.0042	0.0042	
					Pyrene	2.23e-05	5.58e-06	5.58e-06	
					Sulfur Dioxide	3.04	0.76	0.76	
					Toluene	0.00169	0.000423	0.000423	
					Volatile Organic Compounds	0.49	0.12	0.12	
					Xylenes, Total	0.00116	0.00029	0.00029	
		EQUI 671	EU404	Diesel Generator	1,3-Butadiene	0.000184	4.59e-05	4.59e-05	
					Acenaphthene	2.2e-05	5.49e-06	5.49e-06	
					Acenaphthylene	4.33e-05	1.08e-05	1.08e-05	
					Acetaldehyde	0.000118	2.96e-05	2.96e-05	
					Acrolein	3.7e-05	9.25e-06	9.25e-06	
					Anthracene	5.77e-06	1.44e-06	1.44e-06	
					Benzo(a)anthracene	2.92e-06	7.3e-07	7.3e-07	
					Benzo(b)fluoranthene	5.21e-06	1.3e-06	1.3e-06	
					Benzo(ghi)perylene	2.61e-06	6.52e-07	6.52e-07	
					Benzo(a)pyrene	1.21e-06	3.02e-07	3.02e-07	
					Carbon Dioxide	765.29	191.32	191.32	
					Carbon Dioxide Equivalent	774.43	193.61	193.61	
					Carbon Monoxide	3.1	0.78	0.78	
					Chrysene	7.18e-06	1.8e-06	1.8e-06	
					Dibenz(a,h)anthracene	1.62e-06	4.06e-07	4.06e-07	
					Fluoranthene	1.89e-05	4.73e-06	4.73e-06	
					Fluorene	6.01e-05	1.5e-05	1.5e-05	
					Formaldehyde	0.00037	9.26e-05	9.26e-05	
					HAPs - Total			0.002	
					Indeno(1,2,3-cd)pyrene	1.94e-06	4.86e-07	4.86e-07	
					Methane	0.04	0.01	0.01	
					Naphthalene	0.00061	0.000153	0.000153	
					Nitrogen Oxides	3.58	0.9	0.9	
					Nitrous Oxide	0.01	0	0	
					Particulate Matter	0.19	0.05	0.05	
					Phenanthrene	0.000191	4.79e-05	4.79e-05	
					PM < 2.5 micron	0.19	0.05	0.05	
					PM < 10 micron	0.19	0.05	0.05	
					Propylene oxide	0.0131	0.00327	0.00327	
					Pyrene	1.74e-05	4.35e-06	4.35e-06	
					Sulfur Dioxide	0.01	0	0	
					Toluene	0.00132	0.00033	0.00033	
					Volatile Organic Compounds	0.09	0.02	0.02	
					Xylenes, Total	0.000906	0.000226	0.000226	
		EQUI 672	EU413	New Emergency Generator	1,3-Butadiene	1.84e-05	4.59e-06	4.59e-06	
					Acenaphthene	6.66e-07	1.67e-07	1.67e-07	
					Acenaphthylene	2.37e-06	5.94e-07	5.94e-07	
					Acetaldehyde	0.00036	9e-05	9e-05	
					Acrolein	4.34e-05	1.09e-05	1.09e-05	
					Anthracene	8.78e-07	2.19e-07	2.19e-07	
					Benzo(a)anthracene	7.89e-07	1.97e-07	1.97e-07	
					Benzo(b)fluoranthene	4.65e-08	1.16e-08	1.16e-08	
					Benzo(ghi)perylene	2.3e-07	5.74e-08	5.74e-08	
					Benzo(a)pyrene	8.82e-08	2.21e-08	2.21e-08	
					Carbon Dioxide	76.53	19.13	19.13	
					Carbon Dioxide Equivalent	77.44	19.36	19.36	
					Carbon Monoxide	0.18	0.05	0.05	
					Chrysene	1.66e-07	4.14e-08	4.14e-08	
					Dibenz(a,h)anthracene	2.74e-07	6.84e-08	6.84e-08	
					Fluoranthene	3.57e-06	8.93e-07	8.93e-07	
					Fluorene	1.37e-05	3.43e-06	3.43e-06	
					Formaldehyde	0.000554	0.000138	0.000138	
					HAPs - Total			0.00045	
					Indeno(1,2,3-cd)pyrene	1.76e-07	4.4e-08	4.4e-08	
					Naphthalene	3.98e-05	9.95e-06	9.95e-06	
					Nitrogen Oxides	0.56	0.14	0.14	
					Particulate Matter	0.04	0.01	0.01	
					Phenanthrene	1.38e-05	3.45e-06	3.45e-06	
					PM < 2.5 micron	0.04	0.01	0.01	
					PM < 10 micron	0.04	0.01	0.01	
					Propylene oxide	0.00121	0.000303	0.000303	
					Pyrene	2.24e-06	5.61e-07	5.61e-07	

PTE by SI

AI ID (Name): 2476 (US Steel Corp - MinnTac)

Activity: IND20070001

SI Category	SI Type	Subject Item ID	Delta Designation	Description	Pollutant	Potential (lbs/hr)	Unrestricted Potential (tons/yr)	Potential Limited (tons/yr)	Actual Emissions (tons/yr)
Equipment	Reciprocating IC Engine	EQUI 672	EU413	New Emergency Generator	Toluene	0.000192	4.8e-05	4.8e-05	
					Volatile Organic Compounds	0.56	0.14	0.14	
					Xylenes, Total	0.000134	3.34e-05	3.34e-05	
		EQUI 688	Null	Utility Plant Diesel Generator S1	Carbon Dioxide Equivalent	566	141.5	141.5	
					Carbon Monoxide	3.26	0.81	0.81	
					HAPs - Total			0.0034	
					Nitrogen Oxides	15.13	3.78	3.78	
					Particulate Matter	1.06	1.06	0.27	
					PM < 2.5 micron	1.06	1.06	0.27	
					PM < 10 micron	1.06	1.06	0.27	
					Sulfur Dioxide	0.01	0	0	
					Volatile Organic Compounds	1.23	0.31	0.31	
		EQUI 689	Null	Utility Plant Diesel Generator S3	Carbon Dioxide Equivalent	1,171	292.8	292.8	
					Carbon Monoxide	6.03	1.51	1.51	
					HAPs - Total			0.0034	
					Nitrogen Oxides	22.71	5.68	5.68	
					Particulate Matter	0.49	0.12	0.12	
					PM < 2.5 micron	0.49	0.12	0.12	
					PM < 10 micron	0.49	0.1	0.12	
		EQUI 690	Null	Utility Plant Diesel Pump	Volatile Organic Compounds	0.58	0.58	0.15	
					Carbon Dioxide Equivalent	248.33	62.08	62.08	
					Carbon Monoxide	1.43	0.36	0.36	
					HAPs - Total			0.0034	
					Nitrogen Oxides	6.64	1.66	1.66	
					Particulate Matter	0.47	0.12	0.12	
					PM < 2.5 micron	0.47	0.12	0.12	
					PM < 10 micron	0.47	0.12	0.12	
					Volatile Organic Compounds	0.54	0.14	0.14	
		EQUI 691	Null	Diesel Generator	1,3-Butadiene	0.000221	5.53e-05	5.53e-05	
					Acetaldehyde	0.00434	0.00108	0.00108	
					Acrolein	0.000523	0.000131	0.000131	
					Benzene	0.01	0	0	
					Carbon Dioxide	922.23	230.56	230.56	
					Carbon Dioxide Equivalent	933.24	233.31	233.31	
					Carbon Monoxide	5.37	1.34	1.34	
					Formaldehyde	0.00667	0.00167	0.00167	
					HAPs - Total			0.006	
					Methane	0.05	0.01	0.01	
					Naphthalene	0.0005	0.000125	0.000125	
					Nitrogen Oxides	24.94	6.24	6.24	
					Nitrous Oxide	0.01	0	0	
					Particulate Matter	1.75	0.44	0.44	
					PM < 2.5 micron	1.75	0.44	0.44	
					PM < 10 micron	1.75	0.44	0.44	
					Sulfur Dioxide	1.64	0.41	0.01	
					Toluene	0.00231	0.000578	0.000578	
					Volatile Organic Compounds	2.04	0.51	0.51	
					Xylenes, Total	0.00161	0.000403	0.000403	
		EQUI 692	Null	Diesel Generator	1,3-Butadiene	0.000224	5.61e-05	5.61e-05	
					Acenaphthene	8.15e-06	2.04e-06	2.04e-06	
					Acenaphthylene	2.9e-05	7.26e-06	7.26e-06	
					Acetaldehyde	0.0044	0.0011	0.0011	
					Acrolein	0.000531	0.000133	0.000133	
					Anthracene	1.07e-05	2.68e-06	2.68e-06	
					Benzene	0.01	0	0	
					Benzo(a)anthracene	9.64e-06	2.41e-06	2.41e-06	
					Benzo(b)fluoranthene	5.69e-07	1.42e-07	1.42e-07	
					Benzo(ghi)perylene	2.81e-06	7.02e-07	7.02e-07	
					Benzo(a)pyrene	1.08e-06	2.7e-07	2.7e-07	
					Carbon Dioxide	935.93	233.98	233.98	
					Carbon Dioxide Equivalent	947.1	236.78	236.78	
					Carbon Monoxide	5.45	1.36	1.36	
					Chrysene	2.03e-06	5.07e-07	5.07e-07	
					Dibenz[a,h]anthracene	3.35e-06	8.37e-07	8.37e-07	
					Fluoranthene	4.37e-05	1.09e-05	1.09e-05	
					Fluorene	0.000168	4.19e-05	4.19e-05	
					Formaldehyde	0.00677	0.00169	0.00169	
					HAPs - Total			0.006	
					Indeno(1,2,3-cd)pyrene	2.15e-06	5.38e-07	5.38e-07	
					Methane	0.05	0.01	0.01	
					Naphthalene	0.000507	0.000127	0.000127	
					Nitrogen Oxides	25.31	6.33	6.33	
					Nitrous Oxide	0.01	0	0	
					Particulate Matter	1.78	0.44	0.44	
					Phenanthrene	0.000169	4.22e-05	4.22e-05	
					PM < 2.5 micron	1.78	0.44	0.44	
					PM < 10 micron	1.78	0.44	0.44	
					Propylene oxide	0.0148	0.0037	0.0037	

PTE by SI

AI ID (Name): 2476 (US Steel Corp - MinnTac)

Activity: IND20070001

SI Category	SI Type	Subject Item ID	Delta Designation	Description	Pollutant	Potential (lbs/hr)	Unrestricted Potential (tons/yr)	Potential Limited (tons/yr)	Actual Emissions (tons/yr)
Equipment	Reciprocating IC Engine	EQUI 692	Null	Diesel Generator	Pyrene	2.74e-05	6.86e-06	6.86e-06	
					Sulfur Dioxide	1.66	0.42	0.01	
					Toluene	0.00235	0.000587	0.000587	
					Volatile Organic Compounds	2.07	0.52	0.52	
					Xylenes, Total	0.00164	0.000409	0.000409	
		EQUI 693	Null	Diesel Generator	1,3-Butadiene	0.000246	6.16e-05	6.16e-05	
					Acenaphthene	8.95e-06	2.24e-06	2.24e-06	
					Acenaphthylene	3.19e-05	7.97e-06	7.97e-06	
					Acetaldehyde	0.00483	0.00121	0.00121	
					Acrolein	0.000583	0.000146	0.000146	
					Anthracene	1.18e-05	2.95e-06	2.95e-06	
					Benzene	0.01	0	0	
					Benzo(a)anthracene	1.06e-05	2.65e-06	2.65e-06	
					Benzo(b)fluoranthene	6.24e-07	1.56e-07	1.56e-07	
					Benzo(ghi)perylene	3.08e-06	7.7e-07	7.7e-07	
					Benzo[a]pyrene	1.18e-06	2.96e-07	2.96e-07	
					Carbon Dioxide	1,027.24	256.81	256.81	
					Carbon Dioxide Equivalent	1,039.5	259.88	259.88	
					Carbon Monoxide	5.99	1.5	1.5	
					Chrysene	2.22e-06	5.56e-07	5.56e-07	
					Dibenz[a,h]anthracene	3.67e-06	9.18e-07	9.18e-07	
					Fluoranthene	4.79e-05	1.2e-05	1.2e-05	
					Fluorene	0.000184	4.6e-05	4.6e-05	
					Formaldehyde	0.00743	0.00186	0.00186	
					HAPs - Total			0.006	
					Indeno(1,2,3-cd)pyrene	2.36e-06	5.91e-07	5.91e-07	
					Methane	0.05	0.01	0.01	
					Naphthalene	0.000557	0.000139	0.000139	
					Nitrogen Oxides	27.78	6.95	6.95	
					Nitrous Oxide	0.01	0	0	
					Particulate Matter	1.95	0.49	0.49	
					Phenanthrene	0.000185	4.63e-05	4.63e-05	
					PM < 2.5 micron	1.95	0.49	0.49	
					PM < 10 micron	1.95	0.49	0.49	
					Propylene oxide	0.0163	0.00406	0.00406	
					Pyrene	3.01e-05	7.53e-06	7.53e-06	
					Sulfur Dioxide	1.83	0.46	0.01	
					Toluene	0.00258	0.000644	0.000644	
					Volatile Organic Compounds	2.27	0.57	0.57	
					Xylenes, Total	0.0018	0.000449	0.000449	
		EQUI 694	Null	Diesel Generator	1,3-Butadiene	0.000204	5.09e-05	5.09e-05	
					Acenaphthene	7.4e-06	1.85e-06	1.85e-06	
					Acenaphthylene	2.64e-05	6.59e-06	6.59e-06	
					Acetaldehyde	0.00399	0.00099	0.000999	
					Acrolein	0.000482	0.00012	0.00012	
					Anthracene	9.74e-06	2.43e-06	2.43e-06	
					Benzo(a)anthracene	8.75e-06	2.19e-06	2.19e-06	
					Benzo(b)fluoranthene	5.16e-07	1.29e-07	1.29e-07	
					Benzo(ghi)perylene	2.55e-06	6.37e-07	6.37e-07	
					Benzo[a]pyrene	9.79e-07	2.45e-07	2.45e-07	
					Carbon Dioxide	849.18	212.3	212.3	
					Carbon Dioxide Equivalent	859.32	214.83	214.83	
					Carbon Monoxide	4.95	1.24	1.24	
					Chrysene	1.84e-06	4.6e-07	4.6e-07	
					Dibenz[a,h]anthracene	3.04e-06	7.59e-07	7.59e-07	
					Fluoranthene	3.96e-05	9.91e-06	9.91e-06	
					Fluorene	0.000152	3.8e-05	3.8e-05	
					Formaldehyde	0.00615	0.00154	0.00154	
					HAPs - Total			0.006	
					Indeno(1,2,3-cd)pyrene	1.95e-06	4.88e-07	4.88e-07	
					Methane	0.04	0.01	0.01	
					Naphthalene	0.00046	0.000115	0.000115	
					Nitrogen Oxides	22.97	5.74	5.74	
					Nitrous Oxide	0.01	0	0	
					Particulate Matter	1.61	0.4	0.4	
					Phenanthrene	0.000153	3.83e-05	3.83e-05	
					PM < 2.5 micron	1.61	0.4	0.4	
					PM < 10 micron	1.61	0.4	0.4	
					Propylene oxide	0.0134	0.00336	0.00336	
					Pyrene	2.49e-05	6.22e-06	6.22e-06	
					Sulfur Dioxide	1.51	0.38	0.01	
					Toluene	0.00213	0.000533	0.000533	
					Volatile Organic Compounds	1.87	0.47	0.47	
					Xylenes, Total	0.00148	0.000371	0.000371	
		EQUI 695	Null	Diesel Generator	1,3-Butadiene	0.000204	5.09e-05	5.09e-05	
					Acenaphthene	7.4e-06	1.85e-06	1.85e-06	
					Acenaphthylene	2.64e-05	6.59e-06	6.59e-06	
					Acetaldehyde	0.00399	0.000999	0.000999	

PTE by SI

AI ID (Name): 2476 (US Steel Corp - MinnTac)

Activity: IND20070001

SI Category	SI Type	Subject Item ID	Delta Designation	Description	Pollutant	Potential (lbs/hr)	Unrestricted Potential (tons/yr)	Potential Limited (tons/yr)	Actual Emissions (tons/yr)
Equipment	Reciprocating IC Engine	EQUI 695	Null	Diesel Generator	Acrolein	0.000482	0.00012	0.00012	
					Anthracene	9.74e-06	2.43e-06	2.43e-06	
					Benzo(a)anthracene	8.75e-06	2.19e-06	2.19e-06	
					Benzo(b)fluoranthene	5.16e-07	1.29e-07	1.29e-07	
					Benzo(ghi)perylene	2.55e-06	6.37e-07	6.37e-07	
					Benzo[a]pyrene	9.79e-07	2.45e-07	2.45e-07	
					Carbon Dioxide	849.18	212.3	212.3	
					Carbon Dioxide Equivalent	859.32	214.83	214.83	
					Carbon Monoxide	4.95	1.24	1.24	
					Chrysene	1.84e-06	4.6e-07	4.6e-07	
					Dibenz[a,h]anthracene	3.04e-06	7.59e-07	7.59e-07	
					Fluoranthene	3.96e-05	9.91e-06	9.91e-06	
					Fluorene	0.000152	3.8e-05	3.8e-05	
					Formaldehyde	0.00615	0.00154	0.00154	
					HAPs - Total			0.006	
					Indeno(1,2,3-cd)pyrene	1.95e-06	4.88e-07	4.88e-07	
					Methane	0.04	0.01	0.01	
					Naphthalene	0.00046	0.000115	0.000115	
					Nitrogen Oxides	22.97	5.74	5.74	
					Nitrous Oxide	0.01	0	0	
					Particulate Matter	1.61	0.4	0.4	
					Phenanthrene	0.000153	3.83e-05	3.83e-05	
					PM < 2.5 micron	1.61	0.4	0.4	
					PM < 10 micron	1.61	0.4	0.4	
					Propylene oxide	0.0134	0.00336	0.00336	
					Pyrene	2.49e-05	6.22e-06	6.22e-06	
					Sulfur Dioxide	1.51	0.38	0.01	
					Toluene	0.00213	0.000533	0.000533	
					Volatile Organic Compounds	1.87	0.47	0.47	
					Xylenes, Total	0.00148	0.000371	0.000371	
		EQUI 696	Null	Diesel Generator	1,3-Butadiene	0.000192	4.8e-05	4.8e-05	
					Acenaphthene	6.98e-06	1.74e-06	1.74e-06	
					Acenaphthylene	2.49e-05	6.22e-06	6.22e-06	
					Acetaldehyde	0.00377	0.000942	0.000942	
					Acrolein	0.000455	0.000114	0.000114	
					Anthracene	9.19e-06	2.3e-06	2.3e-06	
					Benzo(a)anthracene	9.26e-06	2.06e-06	2.06e-06	
					Benzo(b)fluoranthene	4.87e-07	1.22e-07	1.22e-07	
					Benzo(ghi)perylene	2.4e-06	6.01e-07	6.01e-07	
					Benzo[a]pyrene	9.24e-07	2.31e-07	2.31e-07	
					Carbon Dioxide	801.25	200.31	200.31	
					Carbon Dioxide Equivalent	810.81	202.7	202.7	
					Carbon Monoxide	4.67	1.17	1.17	
					Chrysene	1.73e-06	4.34e-07	4.34e-07	
					Dibenz[a,h]anthracene	2.86e-06	7.16e-07	7.16e-07	
					Fluoranthene	3.74e-05	9.35e-06	9.35e-06	
					Fluorene	0.000143	3.59e-05	3.59e-05	
					Formaldehyde	0.0058	0.00145	0.00145	
					HAPs - Total			0.005	
					Indeno(1,2,3-cd)pyrene	1.84e-06	4.61e-07	4.61e-07	
					Methane	0.04	0.01	0.01	
					Naphthalene	0.000434	0.000109	0.000109	
					Nitrogen Oxides	21.67	5.42	5.42	
					Nitrous Oxide	0.01	0	0	
					Particulate Matter	1.52	0.38	0.38	
					Phenanthrene	0.000144	3.61e-05	3.61e-05	
					PM < 2.5 micron	1.52	0.38	0.38	
					PM < 10 micron	1.52	0.38	0.38	
					Propylene oxide	0.0127	0.00317	0.00317	
					Pyrene	2.35e-05	5.87e-06	5.87e-06	
					Sulfur Dioxide	1.43	0.36	0.01	
					Toluene	0.00201	0.000502	0.000502	
					Volatile Organic Compounds	1.77	0.44	0.44	
					Xylenes, Total	0.0014	0.00035	0.00035	
		EQUI 703	Null	Fire Hall Emergency Generator	Carbon Dioxide Equivalent	307.2	76.8	76.8	
					Carbon Monoxide	0.57	0.14	0.14	
					HAPs - Total			0.002	
					Nitrogen Oxides	1.62	0.41	0.41	
					Particulate Matter	0.08	0.02	0.02	
					PM < 2.5 micron	0.08	0.02	0.02	
					PM < 10 micron	0.08	0.02	0.02	
					Volatile Organic Compounds	1.62	0.41	0.41	
		EQUI 706	Null	Step II Agglomerator Emergency Generator	Carbon Dioxide Equivalent	768	192	192	
					Carbon Monoxide	0.92	0.23	0.23	
					HAPs - Total			0.004	
					Nitrogen Oxides	6.76	1.69	1.69	
					Particulate Matter	0.04	0.01	0.01	
					PM < 2.5 micron	0.04	0.01	0.01	

PTE by SI

AI ID (Name): 2476 (US Steel Corp - MinnTac)

Activity: IND20070001

SI Category	SI Type	Subject Item ID	Delta Designation	Description	Pollutant	Potential (lbs/hr)	Unrestricted Potential (tons/yr)	Potential Limited (tons/yr)	Actual Emissions (tons/yr)
Equipment	Reciprocating IC Engine	EQUI 706	Null	Step II Agglomerator Emergency Generator	PM < 10 micron	0.04	0.01	0.01	
					Volatile Organic Compounds	0.03	0.01	0.01	
	Screens	EQUI 46	EU399	L4 Pellet Scrn Fine Belt	Particulate Matter	0.18	16.08	0.8	
					PM < 2.5 micron	0.13	4.93	0.58	
					PM < 10 micron	0.2	13.77	0.88	
		EQUI 273	EU400	L5 Pellet Scrn Fine Belt	Particulate Matter	0.14	12.06	0.6	
					PM < 2.5 micron	0.1	3.69	0.44	
					PM < 10 micron	0.15	10.33	0.66	
	Silo/Bin	EQUI 13	EU116	Tertiary Storage 006-080 Bin	Particulate Matter	0.24	21.11	1.05	
					PM < 2.5 micron	0.17	6.46	0.76	
					PM < 10 micron	0.26	18.07	1.15	
		EQUI 14	EU118	Tertiary Storage 006-080 Bin	Particulate Matter	0.24	21.11	1.05	
					PM < 2.5 micron	0.17	6.46	0.76	
					PM < 10 micron	0.26	18.07	1.15	
		EQUI 15	EU120	Tertiary Storage 006-080 Bin	Particulate Matter	0.24	21.11	1.05	
					PM < 2.5 micron	0.17	6.46	0.76	
					PM < 10 micron	0.26	18.07	1.15	
		EQUI 19	EU160	Storage Bin L3,4	Particulate Matter	0.45	39.6	1.97	
					PM < 2.5 micron	0.31	12.06	1.37	
					PM < 10 micron	0.48	33.85	2.1	
		EQUI 20	EU162	Storage Bin L5,6	Particulate Matter	0.22	19.51	0.97	
					PM < 2.5 micron	0.15	5.94	0.68	
					PM < 10 micron	0.24	16.67	1.03	
		EQUI 21	EU165	Storage Bin L5,6	Particulate Matter	0.22	19.51	0.97	
					PM < 2.5 micron	0.15	5.94	0.68	
					PM < 10 micron	0.24	16.67	1.03	
		EQUI 22	EU168	Storage Bin L5,6	Particulate Matter	0.56	48.83	2.43	
					PM < 2.5 micron	0.39	14.87	1.69	
					PM < 10 micron	0.59	41.73	2.58	
		EQUI 23	EU171	Storage Bin L7,8	Particulate Matter	0.16	13.68	0.68	
					PM < 2.5 micron	0.11	4.17	0.47	
					PM < 10 micron	0.17	11.69	0.72	
		EQUI 24	EU174	Storage Bin L7,8	Particulate Matter	0.39	34.25	1.71	
					PM < 2.5 micron	0.27	10.43	1.19	
					PM < 10 micron	0.41	29.27	1.81	
		EQUI 25	EU177	Storage Bin L9,10	Particulate Matter	0.18	16.09	0.8	
					PM < 2.5 micron	0.13	4.9	0.56	
					PM < 10 micron	0.19	13.75	0.85	
		EQUI 26	EU179	Storage Bin L9,10	Particulate Matter	0.18	16.09	0.8	
					PM < 2.5 micron	0.13	4.9	0.56	
					PM < 10 micron	0.19	13.75	0.85	
		EQUI 27	EU269	L5 Bentonite Day Bins	Particulate Matter	0	3.27	0.02	
					PM < 2.5 micron	0.01	1.02	0.05	
					PM < 10 micron	0.01	2.82	0.06	
		EQUI 28	EU270	L5 Bentonite Day Bins	Particulate Matter	0	3.27	0.02	
					PM < 2.5 micron	0.01	1.02	0.05	
					PM < 10 micron	0.01	2.82	0.06	
		EQUI 29	EU271	L5 Bentonite Day Bins	Particulate Matter	0	3.27	0.02	
					PM < 2.5 micron	0.01	1.02	0.05	
					PM < 10 micron	0.01	2.82	0.06	
		EQUI 30	EU272	L5 Bentonite Day Bins	Particulate Matter	0	3.27	0.02	
					PM < 2.5 micron	0.01	1.02	0.05	
					PM < 10 micron	0.01	2.82	0.06	
		EQUI 54	EU068	Tertiary Storage Bin 1-4	Particulate Matter	0.18	120.14	0.78	
					PM < 2.5 micron	0.1	36.1	0.45	
					PM < 10 micron	0.18	102.21	0.78	
		EQUI 65	EU085	Tertiary Crusher 080 Bins 5-8	Particulate Matter	0.18	120.1	0.78	
					PM < 2.5 micron	0.1	36	0.45	
					PM < 10 micron	0.18	102	0.78	
		EQUI 66	EU086	Tertiary Crusher 080 Bins 5-8	Particulate Matter	0.18	120	0.78	
					PM < 2.5 micron	0.1	36	0.45	
					PM < 10 micron	0.18	102	0.78	
		EQUI 67	EU087	Tertiary Crusher 080 Bins 5-8	Particulate Matter	0.18	120	0.78	
					PM < 2.5 micron	0.1	36	0.45	
					PM < 10 micron	0.18	102.2	0.78	
		EQUI 68	EU088	Tertiary Crusher 080 Bins 5-8	Particulate Matter	0.18	120	0.78	
					PM < 2.5 micron	0.1	36.13	0.45	
					PM < 10 micron	0.18	102	0.78	
		EQUI 88	EU298	S3 Bentonite Storage	Particulate Matter	0.02	13.1	0.09	
					PM < 2.5 micron	0.02	3.96	0.07	
					PM < 10 micron	0.02	11.17	0.11	
		EQUI 89	EU299	S3 Bentonite Storage	Particulate Matter	0.02	13.1	0.09	
					PM < 2.5 micron	0.02	3.96	0.07	
					PM < 10 micron	0.02	11.17	0.11	
		EQUI 90	EU301	L6 Bentonite Day Bin	Particulate Matter	0	3.27	0.02	
					PM < 2.5 micron	0.01	1.03	0.06	
					PM < 10 micron	0.02	2.83	0.07	
	EQUI 91	EU303	L6 Bentonite Day Bin	Particulate Matter	0	3.27	0.02		

PTE by SI

AI ID (Name): 2476 (US Steel Corp - MinnTac)

Activity: IND20070001

SI Category	SI Type	Subject Item ID	Delta Designation	Description	Pollutant	Potential (lbs/hr)	Unrestricted Potential (tons/yr)	Potential Limited (tons/yr)	Actual Emissions (tons/yr)
Equipment	Silo/Bin	EQUI 91	EU303	L6 Bentonite Day Bin	PM < 2.5 micron	0.01	1.03	0.06	
					PM < 10 micron	0.02	2.83	0.07	
		EQUI 92	EU304	L6 Bentonite Day Bin	Particulate Matter	0	3.27	0.02	
					PM < 2.5 micron	0.01	1.03	0.06	
					PM < 10 micron	0.02	2.83	0.07	
		EQUI 98	EU320	L7 Bentonite Day Bin	Particulate Matter	0	3.27	0.02	
					PM < 2.5 micron	0.01	1.03	0.06	
					PM < 10 micron	0.02	2.83	0.07	
		EQUI 99	EU322	L7 Bentonite Day Bin	Particulate Matter	0	3.27	0.02	
					PM < 2.5 micron	0.01	1.03	0.06	
					PM < 10 micron	0.02	2.83	0.07	
		EQUI 100	EU324	L7 Bentonite Day Bin	Particulate Matter	0	3.27	0.02	
					PM < 2.5 micron	0.01	1.03	0.06	
					PM < 10 micron	0.02	2.83	0.07	
		EQUI 136	EU198	Storage Bin L13,14	Particulate Matter	0.29	196.26	1.28	
					PM < 2.5 micron	0.16	59	0.71	
					PM < 10 micron	0.28	166.94	1.25	
		EQUI 137	EU201	Storage Bin L15,16	Particulate Matter	0.29	25.62	1.28	
					PM < 2.5 micron	0.2	7.8	0.89	
					PM < 10 micron	0.31	21.89	1.36	
		EQUI 138	EU203	Storage Bin L15,16	Particulate Matter	0.29	25.62	1.28	
					PM < 2.5 micron	0.2	7.8	0.89	
					PM < 10 micron	0.31	21.89	1.36	
		EQUI 139	EU206	Storage Bin L15,16	Particulate Matter	0.73	64.12	3.19	
					PM < 2.5 micron	0.51	19.53	2.22	
					PM < 10 micron	0.77	54.8	3.39	
		EQUI 140	EU209	Storage Bin L17,18	Particulate Matter	0.29	196.26	1.28	
					PM < 2.5 micron	0.16	59	0.71	
					PM < 10 micron	0.28	166.94	1.25	
		EQUI 141	EU212	Storage Bin L17,18	Particulate Matter	0.29	196.26	1.28	
					PM < 2.5 micron	0.16	59	0.71	
					PM < 10 micron	0.28	166.94	1.25	
		EQUI 142	EU214	Storage Bin L17,18	Particulate Matter	0.73	491.25	3.19	
					PM < 2.5 micron	0.4	147.67	1.77	
					PM < 10 micron	0.71	417.86	3.12	
		EQUI 151	EU237	S1 Bentonite Storage Bin	Particulate Matter	0.01	7.03	0.05	
					PM < 2.5 micron	0.08	2.45	0.37	
					PM < 10 micron	0.09	6.32	0.38	
		EQUI 152	EU239	L2,3 Bentonite Day Bin	Particulate Matter	0	2.35	0.02	
					PM < 2.5 micron	0.01	0.74	0.04	
					PM < 10 micron	0.01	2.04	0.05	
		EQUI 153	EU242	L2,3 Bentonite Day Bin	Particulate Matter	0	2.35	0.02	
					PM < 2.5 micron	0.01	0.74	0.04	
					PM < 10 micron	0.01	2.04	0.05	
		EQUI 154	EU244	S2 Bentonite Storage Bin	Particulate Matter	0.02	13.1	0.09	
					PM < 2.5 micron	0.03	4	0.11	
					PM < 10 micron	0.03	11.21	0.15	
		EQUI 155	EU247	L4 Bentonite Day Bins	Particulate Matter	0	3.27	0.02	
					PM < 2.5 micron	0.01	1.02	0.05	
					PM < 10 micron	0.01	2.82	0.06	
		EQUI 156	EU249	L4 Bentonite Day Bins	Particulate Matter	0	3.27	0.02	
					PM < 2.5 micron	0.01	1.02	0.05	
					PM < 10 micron	0.01	2.82	0.06	
		EQUI 165	EU297	S3 Bentonite Storage	Particulate Matter	0.02	13.1	0.09	
					PM < 2.5 micron	0.02	3.96	0.07	
					PM < 10 micron	0.02	11.17	0.11	
		EQUI 166	EU302	L6 Bentonite Day Bin	Particulate Matter	0	3.27	0.02	
					PM < 2.5 micron	0.01	1.03	0.06	
					PM < 10 micron	0.02	2.83	0.07	
		EQUI 167	EU305	L6 Bentonite Day Bin	Particulate Matter	0	3.27	0.02	
					PM < 2.5 micron	0.01	0.03	0.06	
					PM < 10 micron	0.02	2.83	0.07	
		EQUI 169	EU321	L7 Bentonite Day Bin	Particulate Matter	0	3.27	0.02	
					PM < 2.5 micron	0.01	1.03	0.06	
					PM < 10 micron	0.02	2.83	0.07	
		EQUI 170	EU182	Storage Bin L9,10	Particulate Matter	0.46	40.28	2.01	
					PM < 2.5 micron	0.32	12.27	1.39	
					PM < 10 micron	0.49	34.43	2.13	
		EQUI 171	EU185	Storage Bin L11,12	Particulate Matter	0.22	19.11	0.95	
					PM < 2.5 micron	0.15	5.82	0.66	
					PM < 10 micron	0.23	16.33	1.01	
		EQUI 172	EU188	Storage Bin L11,12	Particulate Matter	0.54	47.83	2.38	
					PM < 2.5 micron	0.38	14.57	1.66	
					PM < 10 micron	0.58	40.87	2.53	
		EQUI 174	EU195	Storage Bin L13,14	Particulate Matter	0.29	196.26	1.28	
					PM < 2.5 micron	0.16	59	0.71	
					PM < 10 micron	0.28	166.94	1.25	
		EQUI 175	EU323	L7 Bentonite Day Bin	Particulate Matter	0	3.27	0.02	

PTE by SI

AI ID (Name): 2476 (US Steel Corp - MinnTac)
Activity: IND20070001

SI Category	SI Type	Subject Item ID	Delta Designation	Description	Pollutant	Potential (lbs/hr)	Unrestricted Potential (tons/yr)	Potential Limited (tons/yr)	Actual Emissions (tons/yr)
Equipment	Silo/Bin	EQUI 175	EU323	L7 Bentonite Day Bin	PM < 2.5 micron	0.01	1.03	0.06	
					PM < 10 micron	0.02	2.83	0.07	
		EQUI 209	EU148	Storage Bin L1,2	Particulate Matter	0.58	50.98	2.54	
					PM < 2.5 micron	0.37	15.4	1.63	
					PM < 10 micron	0.59	43.43	2.57	
		EQUI 210	EU149	Storage Bin L1,2	Particulate Matter	0.58	50.98	2.54	
					PM < 2.5 micron	0.37	15.4	1.63	
					PM < 10 micron	0.59	43.43	2.57	
		EQUI 211	EU150	Storage Bin L1,2	Particulate Matter	0.58	50.98	2.54	
					PM < 2.5 micron	0.37	15.4	1.63	
					PM < 10 micron	0.59	43.43	2.57	
		EQUI 212	EU151	Storage Bin L1,2	Particulate Matter	0.58	50.98	2.54	
					PM < 2.5 micron	0.37	15.4	1.63	
					PM < 10 micron	0.59	43.43	2.57	
		EQUI 213	EU152	Storage Bin L1,2	Particulate Matter	0.58	50.98	2.54	
					PM < 2.5 micron	0.37	15.4	1.63	
					PM < 10 micron	0.59	43.43	2.57	
		EQUI 214	EU153	Storage Bin L1,2	Particulate Matter	0.58	50.98	2.54	
					PM < 2.5 micron	0.37	15.4	1.63	
					PM < 10 micron	0.59	43.43	2.57	
		EQUI 215	EU154	Storage Bin L1,2	Particulate Matter	0.58	50.98	2.54	
					PM < 2.5 micron	0.37	15.4	1.63	
					PM < 10 micron	0.59	43.43	2.57	
		EQUI 216	EU155	Storage Bin L3,4	Particulate Matter	0.18	15.82	0.79	
					PM < 2.5 micron	0.13	4.82	0.55	
					PM < 10 micron	0.19	13.52	0.84	
		EQUI 217	EU156	Storage Bin L3,4	Particulate Matter	0.18	15.82	0.79	
					PM < 2.5 micron	0.13	4.82	0.55	
					PM < 10 micron	0.19	13.52	0.84	
		EQUI 218	EU157	Storage Bin L3,4	Particulate Matter	0.18	15.82	0.79	
					PM < 2.5 micron	0.13	4.82	0.55	
					PM < 10 micron	0.19	13.52	0.84	
		EQUI 219	EU158	Storage Bin L3,4	Particulate Matter	0.18	15.82	0.79	
					PM < 2.5 micron	0.13	4.82	0.55	
					PM < 10 micron	0.19	13.52	0.84	
		EQUI 220	EU159	Storage Bin L3,4	Particulate Matter	0.18	15.82	0.79	
					PM < 2.5 micron	0.13	4.82	0.55	
					PM < 10 micron	0.19	13.52	0.84	
		EQUI 221	EU161	Storage Bin L3,4	Particulate Matter	0.45	39.6	1.97	
					PM < 2.5 micron	0.31	12.06	1.37	
					PM < 10 micron	0.48	33.85	2.1	
		EQUI 222	EU163	Storage Bin L5,6	Particulate Matter	0.22	19.51	0.97	
					PM < 2.5 micron	0.15	5.94	0.68	
					PM < 10 micron	0.24	16.67	1.03	
		EQUI 223	EU164	Storage Bin L5,6	Particulate Matter	0.15	12.78	0.64	
					PM < 2.5 micron	0.1	3.89	0.44	
					PM < 10 micron	0.15	10.92	0.68	
		EQUI 224	EU166	Storage Bin L5,6	Particulate Matter	0.22	19.51	0.97	
					PM < 2.5 micron	0.15	5.94	0.68	
					PM < 10 micron	0.24	16.67	1.03	
		EQUI 225	EU167	Storage Bin L5,6	Particulate Matter	0.56	48.83	2.43	
					PM < 2.5 micron	0.39	14.87	1.69	
					PM < 10 micron	0.59	41.73	2.58	
		EQUI 226	EU169	Storage Bin L7,8	Particulate Matter	0.16	13.68	0.68	
					PM < 2.5 micron	0.11	4.17	0.47	
					PM < 10 micron	0.17	11.69	0.72	
		EQUI 227	EU170	Storage Bin L7,8	Particulate Matter	0.16	13.68	0.68	
					PM < 2.5 micron	0.11	4.17	0.47	
					PM < 10 micron	0.17	11.69	0.72	
		EQUI 228	EU172	Storage Bin L7,8	Particulate Matter	0.16	13.68	0.68	
					PM < 2.5 micron	0.11	4.17	0.47	
					PM < 10 micron	0.17	11.69	0.72	
		EQUI 229	EU173	Storage Bin L7,8	Particulate Matter	0.16	13.68	0.68	
					PM < 2.5 micron	0.11	4.17	0.47	
					PM < 10 micron	0.17	11.69	0.72	
		EQUI 230	EU175	Storage Bin L7,8	Particulate Matter	0.39	34.25	1.71	
					PM < 2.5 micron	0.27	10.43	1.19	
					PM < 10 micron	0.41	29.27	1.81	
		EQUI 231	EU176	Storage Bin L9,10	Particulate Matter	0.18	16.09	0.8	
					PM < 2.5 micron	0.13	4.9	0.56	
					PM < 10 micron	0.19	13.75	0.85	
		EQUI 232	EU178	Storage Bin L9,10	Particulate Matter	0.18	16.09	0.8	
					PM < 2.5 micron	0.13	4.9	0.56	
					PM < 10 micron	0.19	13.75	0.85	
		EQUI 233	EU180	Storage Bin L9,10	Particulate Matter	0.18	16.09	0.8	
					PM < 2.5 micron	0.13	4.9	0.56	
					PM < 10 micron	0.19	13.75	0.85	
		EQUI 234	EU181	Storage Bin L9,10	Particulate Matter	0.46	40.28	2.01	

PTE by SI

AI ID (Name): 2476 (US Steel Corp - MinnTac)

Activity: IND20070001

SI Category	SI Type	Subject Item ID	Delta Designation	Description	Pollutant	Potential (lbs/hr)	Unrestricted Potential (tons/yr)	Potential Limited (tons/yr)	Actual Emissions (tons/yr)
Equipment	Silo/Bin	EQUI 234	EU181	Storage Bin L9,10	PM < 2.5 micron	0.32	12.27	1.39	
					PM < 10 micron	0.49	34.43	2.13	
		EQUI 235	EU183	Storage Bin L11,12	Particulate Matter	0.22	19.11	0.95	
					PM < 2.5 micron	0.15	5.82	0.66	
					PM < 10 micron	0.23	16.33	1.01	
		EQUI 236	EU184	Storage Bin L11,12	Particulate Matter	0.22	19.11	0.95	
					PM < 2.5 micron	0.15	5.82	0.66	
					PM < 10 micron	0.23	16.33	1.01	
		EQUI 237	EU186	Storage Bin L11,12	Particulate Matter	0.22	19.11	0.95	
					PM < 2.5 micron	0.15	5.82	0.66	
					PM < 10 micron	0.23	16.33	1.01	
		EQUI 238	EU187	Storage Bin L11,12	Particulate Matter	0.22	19.11	0.95	
					PM < 2.5 micron	0.15	5.82	0.66	
					PM < 10 micron	0.23	16.33	1.01	
		EQUI 239	EU189	Storage Bin L11,12	Particulate Matter	0.54	47.83	2.38	
					PM < 2.5 micron	0.38	14.57	1.66	
					PM < 10 micron	0.58	40.87	2.53	
		EQUI 242	EU194	Storage Bin L13,14	Particulate Matter	0.29	196.26	1.28	
					PM < 2.5 micron	0.16	59	0.71	
					PM < 10 micron	0.28	166.94	1.25	
		EQUI 243	EU196	Storage Bin L13,14	Particulate Matter	0.29	196.26	1.28	
					PM < 2.5 micron	0.16	59	0.71	
					PM < 10 micron	0.28	166.94	1.25	
		EQUI 244	EU197	Storage Bin L13,14	Particulate Matter	0.29	196.26	1.28	
					PM < 2.5 micron	0.16	59	0.71	
					PM < 10 micron	0.28	166.94	1.25	
		EQUI 245	EU199	Storage Bin L13,14	Particulate Matter	0.73	491.25	3.19	
					PM < 2.5 micron	0.4	147.67	1.77	
					PM < 10 micron	0.71	417.86	3.12	
		EQUI 246	EU200	Storage Bin L13,14	Particulate Matter	0.73	491.25	3.19	
					PM < 2.5 micron	0.4	147.67	1.77	
					PM < 10 micron	0.71	417.86	3.12	
		EQUI 247	EU202	Storage Bin L15,16	Particulate Matter	0.29	25.62	1.28	
					PM < 2.5 micron	0.2	7.8	0.89	
					PM < 10 micron	0.31	21.89	1.36	
		EQUI 248	EU204	Storage Bin L15,16	Particulate Matter	0.29	25.62	1.28	
					PM < 2.5 micron	0.2	7.8	0.89	
					PM < 10 micron	0.31	21.89	1.36	
		EQUI 249	EU205	Storage Bin L15,16	Particulate Matter	0.29	25.62	1.28	
					PM < 2.5 micron	0.2	7.8	0.89	
					PM < 10 micron	0.31	21.89	1.36	
		EQUI 250	EU207	Storage Bin L15,16	Particulate Matter	0.73	64.12	3.19	
					PM < 2.5 micron	0.51	19.53	2.22	
					PM < 10 micron	0.77	54.8	3.39	
		EQUI 251	EU208	Storage Bin L17,18	Particulate Matter	0.29	196.26	1.28	
					PM < 2.5 micron	0.16	59	0.71	
					PM < 10 micron	0.28	166.94	1.25	
		EQUI 252	EU210	Storage Bin L17,18	Particulate Matter	0.29	196.26	1.28	
					PM < 2.5 micron	0.16	59	0.71	
					PM < 10 micron	0.28	166.94	1.25	
		EQUI 253	EU211	Storage Bin L17,18	Particulate Matter	0.29	196.26	1.28	
					PM < 2.5 micron	0.16	59	0.71	
					PM < 10 micron	0.28	166.94	1.25	
		EQUI 254	EU213	Storage Bin L17,18	Particulate Matter	0.73	491.25	3.19	
					PM < 2.5 micron	0.4	147.67	1.77	
					PM < 10 micron	0.71	417.86	3.12	
		EQUI 291	EU117	Tertiary Storage 006-080 Bin	Particulate Matter	0.24	21.11	1.05	
					PM < 2.5 micron	0.17	6.46	0.76	
					PM < 10 micron	0.26	18.07	1.15	
		EQUI 292	EU119	Tertiary Storage 006-080 Bin	Particulate Matter	0.24	21.11	1.05	
					PM < 2.5 micron	0.17	6.46	0.76	
					PM < 10 micron	0.26	18.07	1.15	
		EQUI 293	EU121	Tertiary Storage 006-080 Bin	Particulate Matter	0.24	21.11	1.05	
					PM < 2.5 micron	0.17	6.46	0.76	
					PM < 10 micron	0.26	18.07	1.15	
		EQUI 316	EU268	L5 Bentonite Day Bins	Particulate Matter	0	3.27	0.02	
					PM < 2.5 micron	0.01	1.02	0.05	
					PM < 10 micron	0.01	2.82	0.06	
		EQUI 355	EU236	S1 Bentonite Storage Bin	Particulate Matter	0.01	7.03	0.05	
					PM < 2.5 micron	0.08	2.45	0.37	
					PM < 10 micron	0.09	6.32	0.38	
		EQUI 356	EU238	S1 Bentonite Storage Bin	Particulate Matter	0.01	7.03	0.05	
					PM < 2.5 micron	0.08	2.45	0.37	
					PM < 10 micron	0.09	6.32	0.38	
		EQUI 357	EU240	L2,3 Bentonite Day Bin	Particulate Matter	0	2.35	0.02	
					PM < 2.5 micron	0.01	0.74	0.04	
					PM < 10 micron	0.01	2.04	0.05	
		EQUI 358	EU241	L2,3 Bentonite Day Bin	Particulate Matter	0	2.35	0.02	

PTE by SI

AI ID (Name): 2476 (US Steel Corp - MinnTac)

Activity: IND20070001

SI Category	SI Type	Subject Item ID	Delta Designation	Description	Pollutant	Potential (lbs/hr)	Unrestricted Potential (tons/yr)	Potential Limited (tons/yr)	Actual Emissions (tons/yr)
Equipment	Silo/Bin	EQUI 358	EU241	L2,3 Bentonite Day Bin	PM < 2.5 micron	0.01	0.74	0.04	
					PM < 10 micron	0.01	2.04	0.05	
		EQUI 360	EU245	S2 Bentonite Storage Bin	Particulate Matter	0.02	13.1	0.09	
					PM < 2.5 micron	0.03	4	0.11	
					PM < 10 micron	0.03	11.21	0.15	
		EQUI 361	EU246	S2 Bentonite Storage Bin	Particulate Matter	0.02	13.1	0.09	
					PM < 2.5 micron	0.03	4	0.11	
					PM < 10 micron	0.03	11.21	0.15	
		EQUI 362	EU248	L4 Bentonite Day Bins	Particulate Matter	0	3.27	0.02	
					PM < 2.5 micron	0.01	1.02	0.05	
					PM < 10 micron	0.01	2.82	0.06	
		EQUI 363	EU250	L4 Bentonite Day Bins	Particulate Matter	0	3.27	0.02	
					PM < 2.5 micron	0.01	1.02	0.05	
					PM < 10 micron	0.01	2.82	0.06	
		EQUI 364	EU251	L4 Bentonite Day Bins	Particulate Matter	0	3.27	0.02	
					PM < 2.5 micron	0.01	1.02	0.05	
					PM < 10 micron	0.01	2.82	0.06	
		EQUI 386	EU065	Tertiary Storage Bin 1-4	Particulate Matter	0.18	120.14	0.78	
					PM < 2.5 micron	0.1	36.13	0.45	
					PM < 10 micron	0.78	0.78	0.78	
		EQUI 387	EU067	Tertiary Storage Bin 1-4	Particulate Matter	0.18	120.14	0.78	
					PM < 2.5 micron	0.1	36.13	0.45	
					PM < 10 micron	0.18	102.21	0.78	
		EQUI 392	EU102	Conveyor Transfer 001 to 070	Particulate Matter	0.75	66.34	3.3	
					PM < 2.5 micron	0.53	20.21	2.3	
					PM < 10 micron	0.8	56.7	3.52	
Fugitive	Material Handling/ Transfer/ Storage	FUGI 18	FS005	Blasting & material handling	Carbon Dioxide	2,758	12,083	12,083	
					Carbon Dioxide Equivalent	2,768	12,125	12,125	
					Carbon Monoxide	361.96	1,585.4	1,585.4	
					Methane	0.11	0.49	0.49	
					Nitrogen Oxides	91.84	402.26	402.26	
					Nitrous Oxide	0.02	0.1	0.1	
					Particulate Matter	0.21	0.02	0.02	
					PM < 2.5 micron	0.01	0	0	
					PM < 10 micron	0.11	0.01	0.01	
					Sulfur Dioxide	10.8	47.33	47.33	
		FUGI 36	Null	Contractor Activities	Particulate Matter	16.72	73.22	73.22	
					PM < 2.5 micron	1.2	5.28	5.28	
					PM < 10 micron	7.89	34.57	34.57	
		FUGI 37	FS018	Step III crude ore stockpile	Particulate Matter	0.94	0.85	0.85	
					PM < 2.5 micron	0.07	0.06	0.06	
					PM < 10 micron	0.44	0.4	0.4	
	Open Air Source	FUGI 16	FS030	Tailings Basin	Particulate Matter	2,321.61	10,168.65	10,168.65	
					PM < 2.5 micron	174.12	762.63	762.63	
					PM < 10 micron	1,160.83	5,084.42	5,084.42	
	Piles	FUGI 3	FS012	Coarse tailings stock pile	Particulate Matter	1.45	6.35	6.35	
					PM < 2.5 micron	0.11	0.48	0.48	
					PM < 10 micron	0.72	3.17	3.17	
		FUGI 4	FS010	Ballast fines rock stock pile - east pit	Particulate Matter	0.17	0.15	0.15	
					PM < 2.5 micron	0.01	0.01	0.01	
					PM < 10 micron	0.08	0.07	0.07	
		FUGI 5	FS009	Ballast product rock stock pile - western	Particulate Matter	0.23	0.21	0.21	
					PM < 2.5 micron	0.02	0.02	0.02	
					PM < 10 micron	0.11	0.1	0.1	
		FUGI 6	FS001	Surface overburden stock pile	Particulate Matter	11.7	10.57	10.57	
					PM < 2.5 micron	0.84	0.76	0.76	
					PM < 10 micron	5.53	5	5	
		FUGI 10	FS016	Group 13 screened fines stock pile	Particulate Matter	0.34	0.31	0.31	
					PM < 2.5 micron	0.02	0.02	0.02	
					PM < 10 micron	0.16	0.15	0.15	
		FUGI 11	FS006	Ballast feed rock stock pile - east pit	Particulate Matter	0.23	0.21	0.21	
					PM < 2.5 micron	0.02	0.01	0.01	
					PM < 10 micron	0.11	0.1	0.1	
		FUGI 12	FS026	Waste Rock Stock Pile	Particulate Matter	16.46	14.87	14.87	
					PM < 2.5 micron	1.18	1.06	1.06	
					PM < 10 micron	7.78	7.03	7.03	
		FUGI 14	FS017	Step I/II crude ore stock pile	Particulate Matter	1.65	1.49	1.49	
					PM < 2.5 micron	0.12	0.11	0.11	
					PM < 10 micron	0.78	0.7	0.7	
		FUGI 15	FS021	Step II/III concentrate stock pile	Particulate Matter	3.1	4.05	4.05	
					PM < 2.5 micron	0.22	0.3	0.3	
					PM < 10 micron	1.47	1.96	1.96	
		FUGI 17	FS023	Step I/II pellet main stock pile #45	Particulate Matter	2.7	2.44	2.44	
					PM < 2.5 micron	0.19	0.17	0.17	
					PM < 10 micron	1.28	1.15	1.15	
		FUGI 19	FS027	Step I/II Crude Ore Stockpile Temp 72	Particulate Matter	3.63	3.28	3.28	
					PM < 2.5 micron	0.26	0.23	0.23	
					PM < 10 micron	1.72	1.55	1.55	

PTE by SI

AI ID (Name): 2476 (US Steel Corp - MinnTac)

Activity: IND20070001

SI Category	SI Type	Subject Item ID	Delta Designation	Description	Pollutant	Potential (lbs/hr)	Unrestricted Potential (tons/yr)	Potential Limited (tons/yr)	Actual Emissions (tons/yr)
Fugitive	Piles	FUGI 21	FS028	Step III Crude Ore Stockpile Temp 74	Particulate Matter	3.63	3.28	3.28	
					PM < 2.5 micron	0.26	0.23	0.23	
					PM < 10 micron	1.72	1.55	1.55	
		FUGI 22	FS008	Ballast product rock stock pile - east pit	Particulate Matter	0.15	0.13	0.13	
					PM < 2.5 micron	0.01	0.01	0.01	
					PM < 10 micron	0.07	0.06	0.06	
		FUGI 23	FS022	Step I/II pellet main stock pile #44	Particulate Matter	59.82	54.44	54.44	
					PM < 2.5 micron	4.28	3.9	3.9	
					PM < 10 micron	28.3	25.76	25.76	
		FUGI 24	FS014	Group 13 feed stock pile	Particulate Matter	0.43	0.96	0.96	
					PM < 2.5 micron	0.03	0.07	0.07	
					PM < 10 micron	0.21	0.47	0.47	
		FUGI 25	FS011	Ballast fines rock stock pile - western	Particulate Matter	0.23	0.2	0.2	
					PM < 2.5 micron	0.02	0.01	0.01	
					PM < 10 micron	0.11	0.1	0.1	
		FUGI 27	FS013	Scrap rod stock pile	Particulate Matter	0.01	0.01	0.01	
					PM < 10 micron	0.01	0.01	0.01	
		FUGI 28	FS024	Step III pellet main stock pile	Particulate Matter	50.11	46.81	46.81	
					PM < 2.5 micron	3.59	3.36	3.36	
					PM < 10 micron	23.71	22.19	22.19	
		FUGI 29	FS007	Ballast feed rock stock pile - western	Particulate Matter	0.49	0.44	0.44	
					PM < 2.5 micron	0.04	0.03	0.03	
					PM < 10 micron	0.23	0.21	0.21	
	Unpaved Roads	FUGI 8	FS002	Unpaved road for heavy-duty vehicles	Particulate Matter	1,939.02	42,461.82	4,246.78	
					PM < 2.5 micron	51.32	1,123.94	112.41	
					PM < 10 micron	513.25	11,239.4	1,124.1	
		FUGI 20	FS003	Unpaved road for secondary vehicles	Particulate Matter	158.63	3,474	347.4	
					PM < 2.5 micron	6.41	140.34	14.03	
					PM < 10 micron	88.77	1,944	194.4	
Structure	Stack/Vent	STRU 60	SV127	L5 Waste Gas Stack	Beryllium	1.05e-05	4.58e-05	4.58e-05	
					Fluorides	1.62	7.1	7.1	
		STRU 69	SV151	L7 Waste Gas Stack	Beryllium	5.38e-06	2.36e-05	2.36e-05	
					Fluorides	1.62	7.1	7.1	
		STRU 155	SV144	L6 Waste Gas Stack	Beryllium	5.38e-06	2.36e-05	2.36e-05	
					Fluorides	1.62	7.1	7.1	
		STRU 208	SV118	L4 Waste Gas Stack	Beryllium	1.05e-05	4.58e-05	4.58e-05	
					Fluorides	1.62	7.1	7.1	
		STRU 225	SV103	L3 Waste Gas Stack	Beryllium	6.73e-06	2.95e-05	2.95e-05	
					Fluorides	1.04	4.56	4.56	

Relationships

AI ID (Name): 2476 (US Steel Corp - MinnTac)
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SI Category	SI Type	Subject Item ID	Delta Designation	Description	Relationship	Related SI ID	% Flow	Related SI Type	Related Delta Designation	Relationship Start Date	Relationship End Date	
Equipment	Blender	EQUI 31	EU273	L5 Bentonite Blending	is controlled by	TREA 111	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE108	11/21/2000	Null	
		EQUI 32	EU274	L5 Bentonite Blending	is controlled by	TREA 111	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE108	11/21/2000	Null	
		EQUI 33	EU275	L5 Bentonite Blending	is controlled by	TREA 111	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE108	11/21/2000	Null	
		EQUI 34	EU276	L5 Bentonite Blending	is controlled by	TREA 111	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE108	11/21/2000	Null	
		EQUI 35	EU277	L5 Bentonite Blending	is controlled by	TREA 111	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE108	11/21/2000	Null	
		EQUI 93	EU306	L6 Bentonite Blending	is controlled by	TREA 137	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE120	11/21/2000	Null	
		EQUI 94	EU307	L6 Bentonite Blending	is controlled by	TREA 137	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE120	11/21/2000	Null	
		EQUI 95	EU309	L6 Bentonite Blending	is controlled by	TREA 137	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE120	11/21/2000	Null	
		EQUI 101	EU325	L7 Bentonite Blending	is controlled by	TREA 145	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE130	11/21/2000	Null	
		EQUI 102	EU327	L7 Bentonite Blending	is controlled by	TREA 145	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE130	11/21/2000	Null	
		EQUI 103	EU328	L7 Bentonite Blending	is controlled by	TREA 145	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE130	11/21/2000	Null	
		EQUI 143	EU217	L3 Bentonite Blending	is controlled by	TREA 94	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE083	11/21/2000	Null	
		EQUI 144	EU220	L3 Bentonite Blending	is controlled by	TREA 94	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE083	11/21/2000	Null	
		EQUI 157	EU252	L4 Bentonite Blending	is controlled by	TREA 102	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE098	11/21/2000	Null	
		EQUI 158	EU254	L4 Bentonite Blending	is controlled by	TREA 102	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE098	11/21/2000	Null	
		EQUI 168	EU308	L6 Bentonite Blending	is controlled by	TREA 137	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE120	11/21/2000	Null	
		EQUI 176	EU326	L7 Bentonite Blending	is controlled by	TREA 145	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE130	11/21/2000	Null	
		EQUI 177	EU329	L7 Bentonite Blending	is controlled by	TREA 145	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE130	11/21/2000	Null	
		EQUI 269	EU310	L6 Bentonite Blending	is controlled by	TREA 137	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE120	11/21/2000	Null	
		EQUI 345	EU218	L3 Bentonite Blending	is controlled by	TREA 94	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE083	11/21/2000	Null	
		EQUI 346	EU219	L3 Bentonite Blending	is controlled by	TREA 94	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE083	11/21/2000	Null	
		EQUI 365	EU253	L4 Bentonite Blending	is controlled by	TREA 102	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE098	11/21/2000	Null	
		EQUI 366	EU255	L4 Bentonite Blending	is controlled by	TREA 102	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE098	11/21/2000	Null	
		EQUI 367	EU256	L4 Bentonite Blending	is controlled by	TREA 102	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE098	11/21/2000	Null	
	Boiler	EQUI 196	EU001	SI 104 MMBtu Heating Boiler	sends to	STRU 142	100	Stack/Vent	SV001	11/21/2000	Null	
		EQUI 197	EU002	SI 104 MMBtu Heating Boiler	sends to	STRU 143	100	Stack/Vent	SV002	11/21/2000	Null	
		EQUI 198	EU003	SII 125 MMBtu Heating Boiler	sends to	STRU 144	100	Stack/Vent	SV003	11/21/2000	Null	
		EQUI 199	EU004	SIII 153 MMBtu Heating Boiler	sends to	STRU 145	100	Stack/Vent	SV004	11/21/2000	Null	
		EQUI 200	EU005	SIII 153 MMBtu Heating Boiler	sends to	STRU 146	100	Stack/Vent	SV005	11/21/2000	Null	
		EQUI 201	EU010	24.6 MMBtu Boiler	sends to	STRU 149	100	Stack/Vent	SV010	11/21/2000	Null	
		EQUI 202	EU011	24.6 MMBtu Boiler	sends to	STRU 150	100	Stack/Vent	SV011	11/21/2000	Null	
	Conveyor	EQUI 6	EU099	Conveyor Transfer 008 to 009	is controlled by	TREA 53	100	001-Wet Scrubber - High Efficiency	CE046	11/21/2000	Null	
						TREA 237	0	018-Fabric Filter - Low Temp, T<180 Degrees F	Null	1/1/2025	Null	
					sends to	STRU 180	100	Stack/Vent	SV060	11/21/2000	Null	
		EQUI 7	EU101	Conveyor Transfer 008 to 009	is controlled by	TREA 53	100	001-Wet Scrubber - High Efficiency	CE046	11/20/2000	Null	
						STRU 180	100	Stack/Vent	SV060	11/21/2000	Null	
		EQUI 8	EU104	Conveyor Transfer 008-009	sends to	STRU 181	100	Stack/Vent	SV063	11/21/2000	Null	
						TREA 230	100	018-Fabric Filter - Low Temp, T<180 Degrees F	Null	12/7/2023	Null	
		EQUI 11	EU111	Conveyor Transfer 001-070 Bin	is controlled by	TREA 62	100	001-Wet Scrubber - High Efficiency	CE055	11/21/2000	Null	

Relationships

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SI Category Equipment	SI Type Conveyor	Subject Item ID	Delta Designation	Description	Relationship	Related SI ID	% Flow	Related SI Type	Related Delta Designation	Relationship Start Date	Relationship End Date	
		EQUI 11	EU111	Conveyor Transfer 001-070 Bin	is controlled by	TREA 265	0	018-Fabric Filter - Low Temp, T<180 Degrees F	Null	1/1/2025	Null	
					sends to	STRU 184	100	Stack/Vent	SV069	11/21/2000	Null	
		EQUI 12	EU114	Conveyor Transfer 003-004	is controlled by	TREA 64	100	001-Wet Scrubber - High Efficiency	CE057	11/21/2000	Null	
						TREA 262	0	018-Fabric Filter - Low Temp, T<180 Degrees F	Null	1/1/2025	Null	
					sends to	STRU 243	100	Stack/Vent	SV071	11/21/2000	Null	
		EQUI 36	EU278	L5 Grate Feed	is controlled by	TREA 112	100	001-Wet Scrubber - High Efficiency	CE109	11/21/2000	Null	
					sends to	STRU 221	100	Stack/Vent	SV125	11/21/2000	Null	
		EQUI 37	EU279	L5 Grate Discharge	is controlled by	TREA 113	100	001-Wet Scrubber - High Efficiency	CE110	11/21/2000	Null	
					sends to	STRU 226	100	Stack/Vent	SV126	11/21/2000	Null	
		EQUI 51	EU040	Conveyor Transfer 005-006	is controlled by	TREA 235	0	018-Fabric Filter - Low Temp, T<180 Degrees F	Null	1/1/2025	Null	
					sends to	STRU 215	100	Stack/Vent	SV023	11/21/2000	Null	
		EQUI 52	EU049	Conveyor Transfer 005 Feed	is controlled by	TREA 219	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE191	7/2/2021	Null	
					sends to	STRU 219	100	Stack/Vent	SV027	11/21/2000	Null	
		EQUI 53	EU050	Conveyor Transfer 005 Discharge	is controlled by	TREA 220	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE192	7/2/2021	Null	
					sends to	STRU 179	100	Stack/Vent	SV028	11/21/2000	Null	
		EQUI 77	EU037	Conveyor Transfer 010-01	is controlled by	TREA 212	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE187	9/18/2020	Null	
					sends to	STRU 196	100	Stack/Vent	SV022	11/21/2000	Null	
		EQUI 78	EU038	Conveyor Transfer 010-01	is controlled by	TREA 212	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE187	9/18/2020	Null	
					sends to	STRU 196	100	Stack/Vent	SV022	11/21/2000	Null	
		EQUI 79	EU264	L4 Conveyor Transfer Feeder	is controlled by	TREA 107	100	001-Wet Scrubber - High Efficiency	CE104	2/26/2003	Null	
					sends to	STRU 209	100	Stack/Vent	SV120	2/26/2003	Null	
		EQUI 81	EU287	L5 Conveyor Transfer 041/046 to 042 Belts	is controlled by	TREA 133	100	001-Wet Scrubber - High Efficiency	CE116	11/21/2000	Null	
					sends to	STRU 256	100	Stack/Vent	SV131	11/21/2000	Null	
		EQUI 82	EU288	L5 Conveyor Transfer 041/046 to 042 Belts	is controlled by	TREA 133	100	001-Wet Scrubber - High Efficiency	CE116	11/21/2000	Null	
					sends to	STRU 256	100	Stack/Vent	SV131	11/21/2000	Null	
		EQUI 87	EU296	S3 Conveyor Transfer	is controlled by	TREA 134	100	001-Wet Scrubber - High Efficiency	CE117	11/21/2000	Null	
					sends to	STRU 64	100	Stack/Vent	SV138	11/21/2000	Null	
		EQUI 96	EU311	L6 Grate Feed	is controlled by	TREA 138	100	001-Wet Scrubber - High Efficiency	CE121	11/21/2000	Null	
					sends to	STRU 141	100	Stack/Vent	SV142	11/21/2000	Null	
		EQUI 97	EU312	L6 Grate Discharge	is controlled by	TREA 139	100	001-Wet Scrubber - High Efficiency	CE122	11/21/2000	Null	
					sends to	STRU 66	100	Stack/Vent	SV143	11/21/2000	Null	
		EQUI 104	EU330	L7 Grate Feed	is controlled by	TREA 146	100	001-Wet Scrubber - High Efficiency	CE131	11/21/2000	Null	
					sends to	STRU 157	100	Stack/Vent	SV149	11/21/2000	Null	
		EQUI 109	EU342	Step III 042 Conveyor Vent	sends to	STRU 72	100	Stack/Vent	SV157	11/21/2000	Null	
		EQUI 110	EU343	Step III 043 Conveyor Vent	sends to	STRU 160	100	Stack/Vent	SV158	11/21/2000	Null	
		EQUI 111	EU345	Step III 044 Conveyor Vent	sends to	STRU 73	100	Stack/Vent	SV160	11/21/2000	Null	
		EQUI 112	EU347	Step III 044 Conveyor Vent	sends to	STRU 74	100	Stack/Vent	SV162	11/21/2000	Null	
		EQUI 113	EU349	Step III 044 Conveyor Vent	sends to	STRU 75	100	Stack/Vent	SV164	11/21/2000	Null	
		EQUI 114	EU350	Step III 044 Conveyor Vent	sends to	STRU 164	100	Stack/Vent	SV165	11/21/2000	Null	

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SI Category Equipment	SI Type Conveyor	Subject Item ID	Delta Designation	Description	Relationship	Related SI ID	% Flow	Related SI Type	Related Delta Designation	Relationship Start Date	Relationship End Date	
		EQUI 115	EU352	Step III 044 Conveyor Vent	sends to	STRU 165	100	Stack/Vent	SV167	11/21/2000	Null	
		EQUI 116	EU354	Step III 044 Conveyor Vent	sends to	STRU 166	100	Stack/Vent	SV169	11/21/2000	Null	
		EQUI 117	EU356	Step III 044 Conveyor Vent	sends to	STRU 167	100	Stack/Vent	SV171	11/21/2000	Null	
		EQUI 118	EU358	Step III 044 Conveyor Vent	sends to	STRU 168	100	Stack/Vent	SV173	11/21/2000	Null	
		EQUI 119	EU318	L6 Conveyor Transfer	is controlled by	TREA 225	100	053-Venturi Scrubber	Null	11/8/2023	Null	
					sends to	STRU 271	100	Stack/Vent	Null	11/8/2023	Null	
		EQUI 120	EU319	L6 Conveyor Transfer	is controlled by	TREA 225	100	053-Venturi Scrubber	Null	11/8/2023	Null	
					sends to	STRU 271	100	Stack/Vent	Null	11/8/2023	Null	
		EQUI 122	EU337	L7 Conveyor Transfer	is controlled by	TREA 185	100	001-Wet Scrubber - High Efficiency	CE151	11/21/2000	Null	
					sends to	STRU 70	100	Stack/Vent	SV153	11/21/2000	Null	
		EQUI 123	EU338	L7 Conveyor Transfer	is controlled by	TREA 185	100	001-Wet Scrubber - High Efficiency	CE151	11/21/2000	Null	
					sends to	STRU 70	100	Stack/Vent	SV153	11/21/2000	Null	
		EQUI 148	EU230	L3 041/046 Conveyor Belt Vent	sends to	STRU 203	100	Stack/Vent	SV107	11/21/2000	Null	
		EQUI 149	EU232	S1 Conveyor Transfer 042-043	is controlled by	TREA 176	100	001-Wet Scrubber - High Efficiency	CE091	11/21/2000	Null	
					sends to	STRU 123	100	Stack/Vent	SV108	11/21/2000	Null	
		EQUI 150	EU235	L3 Conveyor Transfer 041-042	is controlled by	TREA 177	100	001-Wet Scrubber - High Efficiency	CE092	11/21/2000	Null	
					sends to	STRU 204	100	Stack/Vent	SV109	11/21/2000	Null	
		EQUI 159	EU257	L4 Grate Feed	is controlled by	TREA 103	100	001-Wet Scrubber - High Efficiency	CE099	11/21/2000	Null	
					sends to	STRU 127	100	Stack/Vent	SV116	11/21/2000	Null	
		EQUI 164	EU295	S3 Conveyor Transfer	is controlled by	TREA 134	100	001-Wet Scrubber - High Efficiency	CE117	11/21/2000	Null	
					sends to	STRU 64	100	Stack/Vent	SV138	11/21/2000	Null	
		EQUI 173	EU190	Conveyor Transfer 009-020	is controlled by	TREA 86	100	001-Wet Scrubber - High Efficiency	CE079	11/21/2000	Null	
						TREA 261	0	018-Fabric Filter - Low Temp, T<180 Degrees F	Null	1/1/2025	Null	
					sends to	STRU 117	100	Stack/Vent	SV094	11/21/2000	Null	
		EQUI 178	EU331	L7 Grate Discharge	is controlled by	TREA 147	100	001-Wet Scrubber - High Efficiency	CE132	11/21/2000	Null	
					sends to	STRU 227	100	Stack/Vent	SV150	11/21/2000	Null	
		EQUI 180	EU341	Step III 042 Conveyor Vent	sends to	STRU 159	100	Stack/Vent	SV156	11/21/2000	Null	
		EQUI 181	EU344	Step III 043 Conveyor Vent	sends to	STRU 161	100	Stack/Vent	SV159	11/21/2000	Null	
		EQUI 182	EU346	Step III 044 Conveyor Vent	sends to	STRU 162	100	Stack/Vent	SV161	11/21/2000	Null	
		EQUI 183	EU348	Step III 044 Conveyor Vent	sends to	STRU 163	100	Stack/Vent	SV163	11/21/2000	Null	
		EQUI 184	EU351	Step III 044 Conveyor Vent	sends to	STRU 76	100	Stack/Vent	SV166	11/21/2000	Null	
		EQUI 185	EU353	Step III 044 Conveyor Vent	sends to	STRU 77	100	Stack/Vent	SV168	11/21/2000	Null	
		EQUI 186	EU355	Step III 044 Conveyor Vent	sends to	STRU 78	100	Stack/Vent	SV170	11/21/2000	Null	
		EQUI 187	EU357	Step III 044 Conveyor Vent	sends to	STRU 79	100	Stack/Vent	SV172	11/21/2000	Null	
		EQUI 240	EU191	Conveyor Transfer 009-020	is controlled by	TREA 86	100	001-Wet Scrubber - High Efficiency	CE079	11/21/2000	Null	
						TREA 261	0	018-Fabric Filter - Low Temp, T<180 Degrees F	Null	1/1/2025	Null	
					sends to	STRU 117	100	Stack/Vent	SV094	11/21/2000	Null	
		EQUI 241	EU192	Conveyor Transfer 009-020	is controlled by	TREA 86	100	001-Wet Scrubber - High Efficiency	CE079	11/21/2000	Null	
						TREA 261	0	018-Fabric Filter - Low Temp, T<180 Degrees F	Null	1/1/2025	Null	

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SI Category Equipment	SI Type	Subject Item ID	Delta Designation	Description	Relationship	Related SI ID	% Flow	Related SI Type	Related Delta Designation	Relationship Start Date	Relationship End Date	
	Conveyor	EQUI 241	EU192	Conveyor Transfer 009-020	sends to	STRU 117	100	Stack/Vent	SV094	11/21/2000	Null	
		EQUI 272	EU285	L5 Conveyor Transfer Feeder (B4 L5 hygiene)	is controlled by	TREA 132	100	001-Wet Scrubber - High Efficiency	CE114	2/26/2003	Null	
					sends to	STRU 61	100	Stack/Vent	SV129	2/26/2003	Null	
		EQUI 275	EU394	Limestone Dump Pocket	is controlled by	TREA 90	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE143	11/21/2000	Null	
					sends to	STRU 253	100	Stack/Vent	SV194	2/26/2003	Null	
		EQUI 284	EU105	Conveyor Transfer 008-009	is controlled by	TREA 230	100	018-Fabric Filter - Low Temp, T<180 Degrees F	Null	12/7/2023	Null	
					sends to	STRU 181	100	Stack/Vent	SV063	11/21/2000	Null	
		EQUI 288	EU112	Conveyor Transfer 003	is controlled by	TREA 63	100	001-Wet Scrubber - High Efficiency	CE056	11/21/2000	Null	
						TREA 264	0	018-Fabric Filter - Low Temp, T<180 Degrees F	Null	1/1/2025	Null	
					sends to	STRU 242	100	Stack/Vent	SV070	11/21/2000	Null	
		EQUI 289	EU113	Conveyor Transfer 003	is controlled by	TREA 63	100	001-Wet Scrubber - High Efficiency	CE056	11/21/2000	Null	
						TREA 264	0	018-Fabric Filter - Low Temp, T<180 Degrees F	Null	1/1/2025	Null	
					sends to	STRU 242	100	Stack/Vent	SV070	11/21/2000	Null	
		EQUI 290	EU115	Conveyor Transfer 003-004	is controlled by	TREA 64	100	001-Wet Scrubber - High Efficiency	CE057	11/21/2000	Null	
						TREA 262	0	018-Fabric Filter - Low Temp, T<180 Degrees F	Null	1/1/2025	Null	
					sends to	STRU 243	100	Stack/Vent	SV071	11/21/2000	Null	
		EQUI 309	EU140	Conveyor Transfer 005-006	is controlled by	TREA 215	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE230	10/2/2019	Null	
					sends to	STRU 191	100	Stack/Vent	SV085	11/21/2000	Null	
		EQUI 310	EU141	Conveyor Transfer 005-006	is controlled by	TREA 215	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE230	10/2/2019	Null	
					sends to	STRU 191	100	Stack/Vent	SV085	11/21/2000	Null	
		EQUI 313	EU144	Conveyor Transfer 009-020	is controlled by	TREA 229	100	018-Fabric Filter - Low Temp, T<180 Degrees F	Null	9/14/2023	Null	
					sends to	STRU 251	100	Stack/Vent	SV087	11/21/2000	Null	
		EQUI 314	EU145	Conveyor Transfer 009-020	is controlled by	TREA 229	100	018-Fabric Filter - Low Temp, T<180 Degrees F	Null	9/14/2023	Null	
					sends to	STRU 251	100	Stack/Vent	SV087	11/21/2000	Null	
		EQUI 315	EU267	L4 Conveyor Transfer 041/046 to 042 Belts	is controlled by	TREA 108	100	001-Wet Scrubber - High Efficiency	CE106	11/21/2000	Null	
					sends to	STRU 230	100	Stack/Vent	SV122	11/21/2000	Null	
		EQUI 318	EU034	Conveyor Transfer 005-006	is controlled by	TREA 233	100	018-Fabric Filter - Low Temp, T<180 Degrees F	Null	12/12/2025	Null	
					sends to	STRU 214	100	Stack/Vent	SV021	11/21/2000	Null	
		EQUI 319	EU036	Conveyor Transfer 010-01	is controlled by	TREA 212	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE187	9/18/2020	Null	
					sends to	STRU 196	100	Stack/Vent	SV022	11/21/2000	Null	
		EQUI 320	EU039	Conveyor Transfer 010-01	is controlled by	TREA 212	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE187	9/18/2020	Null	
					sends to	STRU 196	100	Stack/Vent	SV022	11/21/2000	Null	
		EQUI 321	EU041	Conveyor Transfer 004-005	is controlled by	TREA 210	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE174	2/1/2011	Null	
					sends to	STRU 216	100	Stack/Vent	SV024	11/21/2000	Null	
		EQUI 322	EU043	Conveyor Transfer 004-005	is controlled by	TREA 210	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE174	2/1/2011	Null	
					sends to	STRU 216	100	Stack/Vent	SV024	11/21/2000	Null	
		EQUI 323	EU045	Conveyor Transfer 004-005	is controlled by	TREA 210	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE174	2/1/2011	Null	
					sends to	STRU 216	100	Stack/Vent	SV024	11/21/2000	Null	
		EQUI 324	EU047	Conveyor Transfer 011-02/03	is controlled by	TREA 126	100	001-Wet Scrubber - High Efficiency	CE012	11/21/2000	Null	

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SI Category Equipment	SI Type Conveyor	Subject Item ID	Delta Designation	Description	Relationship	Related SI ID	% Flow	Related SI Type	Related Delta Designation	Relationship Start Date	Relationship End Date	
		EQUI 324	EU047	Conveyor Transfer 011-02/03	is controlled by	TREA 244	0	018-Fabric Filter - Low Temp, T<180 Degrees F	Null	1/1/2025	Null	
					sends to	STRU 217	100	Stack/Vent	SV025	11/21/2000	Null	
		EQUI 326	EU052	Conveyor Transfer 008 to 009	is controlled by	TREA 221	100	018-Fabric Filter - Low Temp, T<180 Degrees F	Null	12/5/2022	Null	
					sends to	STRU 92	100	Stack/Vent	SV030	11/21/2000	Null	
		EQUI 330	EU059	Conveyor Transfer 005 to 006	is controlled by	TREA 213	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE198	6/17/2019	Null	
					sends to	STRU 97	100	Stack/Vent	SV035	11/21/2000	Null	
		EQUI 331	EU061	Conveyor Transfer 003 to 004	is controlled by	TREA 222	100	018-Fabric Filter - Low Temp, T<180 Degrees F	Null	11/3/2022	Null	
					sends to	STRU 98	100	Stack/Vent	SV036	11/21/2000	Null	
		EQUI 332	EU063	Conveyor Transfer 003 to 004	is controlled by	TREA 222	100	018-Fabric Filter - Low Temp, T<180 Degrees F	Null	11/3/2022	Null	
					sends to	STRU 98	100	Stack/Vent	SV036	11/21/2000	Null	
		EQUI 333	EU064	Conveyor Transfer 003 to 004	is controlled by	TREA 222	100	018-Fabric Filter - Low Temp, T<180 Degrees F	Null	11/3/2022	Null	
					sends to	STRU 98	100	Stack/Vent	SV036	11/21/2000	Null	
		EQUI 342	EU098	Conveyor Transfer 008 to 009	is controlled by	TREA 53	100	001-Wet Scrubber - High Efficiency	CE046	11/21/2000	Null	
						TREA 237	0	018-Fabric Filter - Low Temp, T<180 Degrees F	Null	1/1/2025	Null	
					sends to	STRU 180	100	Stack/Vent	SV060	11/21/2000	Null	
		EQUI 343	EU100	Conveyor Transfer 008 to 009	is controlled by	TREA 53	100	001-Wet Scrubber - High Efficiency	CE046	11/20/2000	Null	
						TREA 237	0	018-Fabric Filter - Low Temp, T<180 Degrees F	Null	1/1/2025	Null	
					sends to	STRU 180	100	Stack/Vent	SV060	11/21/2000	Null	
		EQUI 347	EU221	L3 Grate Feed	is controlled by	TREA 172	100	001-Wet Scrubber - High Efficiency	CE084	11/21/2000	Null	
					sends to	STRU 120	100	Stack/Vent	SV101	11/21/2000	Null	
		EQUI 348	EU222	L3 Grate Discharge	is controlled by	TREA 173	100	001-Wet Scrubber - High Efficiency	CE085	11/21/2000	Null	
					sends to	STRU 201	100	Stack/Vent	SV102	11/21/2000	Null	
		EQUI 352	EU231	L3 041/046 Conveyor Belt Vent	sends to	STRU 203	100	Stack/Vent	SV107	11/21/2000	Null	
		EQUI 353	EU233	S1 Conveyor Transfer 042-043	is controlled by	TREA 176	100	001-Wet Scrubber - High Efficiency	CE091	11/21/2000	Null	
					sends to	STRU 123	100	Stack/Vent	SV108	11/21/2000	Null	
		EQUI 354	EU234	L3 Conveyor Transfer 041-042	is controlled by	TREA 177	100	001-Wet Scrubber - High Efficiency	CE092	11/21/2000	Null	
					sends to	STRU 204	100	Stack/Vent	SV109	11/21/2000	Null	
		EQUI 368	EU258	L4 Grate Discharge	is controlled by	TREA 104	100	001-Wet Scrubber - High Efficiency	CE100	11/21/2000	Null	
					sends to	STRU 128	100	Stack/Vent	SV117	11/21/2000	Null	
		EQUI 372	EU266	L4 Conveyor Transfer 041/046 to 042 Belts	is controlled by	TREA 108	100	001-Wet Scrubber - High Efficiency	CE106	11/21/2000	Null	
					sends to	STRU 230	100	Stack/Vent	SV122	11/21/2000	Null	
		EQUI 377	EU035	Conveyor Transfer 005-006	is controlled by	TREA 233	100	018-Fabric Filter - Low Temp, T<180 Degrees F	Null	12/12/2025	Null	
					sends to	STRU 214	100	Stack/Vent	SV021	11/21/2000	Null	
		EQUI 378	EU042	Conveyor Transfer 004-005	is controlled by	TREA 210	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE174	2/1/2011	Null	
					sends to	STRU 216	100	Stack/Vent	SV024	11/21/2000	Null	
		EQUI 379	EU044	Conveyor Transfer 004-005	is controlled by	TREA 210	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE174	2/1/2011	Null	
					sends to	STRU 216	100	Stack/Vent	SV024	11/21/2000	Null	
		EQUI 380	EU046	Conveyor Transfer 004-005	is controlled by	TREA 210	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE174	2/1/2011	Null	
					sends to	STRU 216	100	Stack/Vent	SV024	11/21/2000	Null	

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SI Category Equipment	SI Type	Subject Item ID	Delta Designation	Description	Relationship	Related SI ID	% Flow	Related SI Type	Related Delta Designation	Relationship Start Date	Relationship End Date	
	Conveyor	EQUI 381	EU053	Conveyor Transfer 008 to 009	is controlled by	TREA 221	100	018-Fabric Filter - Low Temp, T<180 Degrees F	Null	12/5/2022	Null	
					sends to	STRU 92	100	Stack/Vent	SV030	11/21/2000	Null	
		EQUI 383	EU058	Conveyor Transfer 005 to 006	is controlled by	TREA 213	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE198	6/17/2019	Null	
					sends to	STRU 97	100	Stack/Vent	SV035	11/21/2000	Null	
		EQUI 384	EU060	Conveyor Transfer 005 to 006	is controlled by	TREA 213	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE198	6/17/2019	Null	
					sends to	STRU 97	100	Stack/Vent	SV035	11/21/2000	Null	
		EQUI 385	EU062	Conveyor Transfer 003 to 004	is controlled by	TREA 222	100	018-Fabric Filter - Low Temp, T<180 Degrees F	Null	11/3/2022	Null	
					sends to	STRU 98	100	Stack/Vent	SV036	11/21/2000	Null	
		EQUI 393	EU146	Conveyor Transfer 009-020	is controlled by	TREA 229	100	018-Fabric Filter - Low Temp, T<180 Degrees F	Null	9/14/2023	Null	
					sends to	STRU 251	100	Stack/Vent	SV087	11/21/2000	Null	
		EQUI 394	EU147	Conveyor Transfer 009-020	is controlled by	TREA 229	100	018-Fabric Filter - Low Temp, T<180 Degrees F	Null	9/14/2023	Null	
					sends to	STRU 251	100	Stack/Vent	SV087	11/21/2000	Null	
		EQUI 395	EU193	Conveyor Transfer 009-020	is controlled by	TREA 86	100	001-Wet Scrubber - High Efficiency	CE079	11/21/2000	Null	
						TREA 261	0	018-Fabric Filter - Low Temp, T<180 Degrees F	Null	1/1/2025	Null	
					sends to	STRU 117	100	Stack/Vent	SV094	11/21/2000	Null	
		EQUI 685	Null	Coal Day Bin/Conveyor Transfer	sends to	STRU 84	100	Stack/Vent	SV182	1/1/1978	Null	
		EQUI 697	Null	Conveyor Transfer	sends to	STRU 264	100	Stack/Vent	Null	1/18/2023	Null	
		EQUI 698	Null	Conveyor Transfer	sends to	STRU 265	100	Stack/Vent	Null	1/18/2023	Null	
		EQUI 699	Null	Conveyor Transfer	sends to	STRU 266	100	Stack/Vent	Null	1/18/2023	Null	
		EQUI 700	Null	Conveyor Transfer	sends to	STRU 267	100	Stack/Vent	Null	1/18/2023	Null	
		EQUI 701	Null	Conveyor Transfer	sends to	STRU 268	100	Stack/Vent	Null	1/18/2023	Null	
		EQUI 702	Null	Conveyor Transfer	sends to	STRU 269	100	Stack/Vent	Null	1/18/2023	Null	
	Cooler	EQUI 41	EU284	L5 Pellet Cooler Vent Stack	sends to	STRU 133	Null	Stack/Vent	SV128	11/21/2000	Null	
		EQUI 42	EU286	L5 Cooler Discharge / Fines Conveyor	is controlled by	TREA 179	Null	001-Wet Scrubber - High Efficiency	CE115	11/21/2000	Null	
					sends to	STRU 134	Null	Stack/Vent	SV130	11/21/2000	Null	
		EQUI 147	EU228	L3 Cooler Discharge	is controlled by	TREA 174	100	001-Wet Scrubber - High Efficiency	CE089	11/21/2000	Null	
					sends to	STRU 202	100	Stack/Vent	SV105	11/21/2000	Null	
		EQUI 267	EU397	L6 Pellet Cooler Vent Stack	sends to	STRU 254	Null	Stack/Vent	SV196	11/21/2000	Null	
		EQUI 268	EU398	L7 Pellet Cooler Vent Stack	sends to	STRU 255	100	Stack/Vent	SV197	11/21/2000	Null	
		EQUI 350	EU227	L3 Cooler Vent Stack	sends to	STRU 121	100	Stack/Vent	SV104	11/21/2000	Null	
		EQUI 370	EU263	L4 Pellet Cooler Vent Stack	sends to	STRU 129	100	Stack/Vent	SV119	11/21/2000	Null	
		EQUI 371	EU265	L4 Cooler Discharge / Fines Conveyor	is controlled by	TREA 178	100	001-Wet Scrubber - High Efficiency	CE105	11/21/2000	Null	
					sends to	STRU 130	100	Stack/Vent	SV121	11/21/2000	Null	
	Crusher	EQUI 5	EU097	Secondary Crusher L10	is controlled by	TREA 52	100	001-Wet Scrubber - High Efficiency	CE045	11/21/2000	Null	
						TREA 242	0	018-Fabric Filter - Low Temp, T<180 Degrees F	Null	1/1/2025	Null	
					sends to	STRU 236	100	Stack/Vent	SV059	11/21/2000	Null	
		EQUI 9	EU106	Secondary Crusher L11	is controlled by	TREA 57	Null	001-Wet Scrubber - High Efficiency	CE050	11/21/2000	Null	
						TREA 245	0	018-Fabric Filter - Low Temp, T<180 Degrees F	Null	1/1/2025	Null	
					sends to	STRU 239	Null	Stack/Vent	SV064	11/21/2000	Null	

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SI Category Equipment	SI Type	Subject Item ID	Delta Designation	Description	Relationship	Related SI ID	% Flow	Related SI Type	Related Delta Designation	Relationship Start Date	Relationship End Date	
	Crusher	EQUI 10	EU109	Secondary Crusher L14	is controlled by	TREA 248	100	018-Fabric Filter - Low Temp, T<180 Degrees F	Null	10/30/2025	Null	
					sends to	STRU 183	100	Stack/Vent	SV067	11/21/2000	Null	
		EQUI 47	EU013	Step I Coarse Crusher	is controlled by	TREA 115	50	018-Fabric Filter - Low Temp, T<180 Degrees F	CE001	11/21/2000	Null	
						TREA 116	50	018-Fabric Filter - Low Temp, T<180 Degrees F	CE002	11/21/2000	Null	
					sends to	STRU 152	50	Stack/Vent	SV013	11/21/2000	Null	
						STRU 153	50	Stack/Vent	SV014	11/21/2000	Null	
		EQUI 48	EU017	Step III Coarse Crusher	is controlled by	TREA 117	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE003	11/21/2000	Null	
					sends to	STRU 154	100	Stack/Vent	SV015	11/21/2000	Null	
		EQUI 55	EU075	Tertiary Crusher L7	is controlled by	TREA 200	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE164	7/1/2010	Null	
					sends to	STRU 105	100	Stack/Vent	SV044	11/21/2000	Null	
		EQUI 56	EU076	Tertiary Crusher L8	is controlled by	TREA 201	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE165	7/1/2010	Null	
					sends to	STRU 106	100	Stack/Vent	SV045	11/21/2000	Null	
		EQUI 57	EU077	Tertiary Crusher L9	is controlled by	TREA 202	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE166	7/1/2010	Null	
					sends to	STRU 107	100	Stack/Vent	SV046	11/21/2000	Null	
		EQUI 58	EU078	Tertiary Crusher L10	is controlled by	TREA 203	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE167	7/1/2010	Null	
					sends to	STRU 108	100	Stack/Vent	SV047	11/21/2000	Null	
		EQUI 59	EU079	Tertiary Crusher L11	is controlled by	TREA 204	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE168	7/1/2010	Null	
					sends to	STRU 109	100	Stack/Vent	SV048	11/21/2000	Null	
		EQUI 60	EU080	Tertiary Crusher L12	is controlled by	TREA 205	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE169	7/1/2010	Null	
					sends to	STRU 110	100	Stack/Vent	SV049	11/21/2000	Null	
		EQUI 61	EU081	Tertiary Crusher L13	is controlled by	TREA 206	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE170	7/1/2010	Null	
					sends to	STRU 111	100	Stack/Vent	SV050	11/21/2000	Null	
		EQUI 62	EU082	Tertiary Crusher L14	is controlled by	TREA 207	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE171	7/1/2010	Null	
					sends to	STRU 112	100	Stack/Vent	SV051	11/21/2000	Null	
		EQUI 63	EU083	Tertiary Crusher L15	is controlled by	TREA 208	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE172	7/1/2010	Null	
					sends to	STRU 231	100	Stack/Vent	SV052	11/21/2000	Null	
		EQUI 64	EU084	Tertiary Crusher L16	is controlled by	TREA 209	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE173	7/1/2010	Null	
					sends to	STRU 232	100	Stack/Vent	SV053	11/21/2000	Null	
		EQUI 72	EU015	Step II Coarse Crusher	is controlled by	TREA 116	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE002	11/21/2000	Null	
					sends to	STRU 153	100	Stack/Vent	SV014	11/21/2000	Null	
		EQUI 283	EU103	Secondary Crusher L5	is controlled by	TREA 267	100	018-Fabric Filter - Low Temp, T<180 Degrees F	Null	11/21/2024	Null	
					sends to	STRU 238	100	Stack/Vent	SV062	11/21/2000	Null	
		EQUI 285	EU107	Secondary Crusher L12	is controlled by	TREA 58	100	001-Wet Scrubber - High Efficiency	CE051	11/21/2000	Null	
						TREA 246	0	018-Fabric Filter - Low Temp, T<180 Degrees F	Null	1/1/2025	Null	
					sends to	STRU 182	100	Stack/Vent	SV065	11/21/2000	Null	
		EQUI 286	EU108	Secondary Crusher L13	is controlled by	TREA 59	100	001-Wet Scrubber - High Efficiency	CE052	11/21/2000	Null	
						TREA 247	0	018-Fabric Filter - Low Temp, T<180 Degrees F	Null	1/1/2025	Null	
					sends to	STRU 240	100	Stack/Vent	SV066	11/21/2000	Null	
		EQUI 287	EU110	Secondary Crusher L15	is controlled by	TREA 249	0	018-Fabric Filter - Low Temp, T<180 Degrees F	Null	1/1/2025	Null	

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SI Category Equipment	SI Type Crusher	Subject Item ID	Delta Designation	Description	Relationship	Related SI ID	% Flow	Related SI Type	Related Delta Designation	Relationship Start Date	Relationship End Date	
		EQUI 287	EU110	Secondary Crusher L15	sends to	STRU 241	100	Stack/Vent	SV068	11/21/2000	Null	
		EQUI 297	EU128	Tertiary Crusher L18	is controlled by	TREA 66	100	001-Wet Scrubber - High Efficiency	CE059	11/21/2000	Null	
						TREA 250	0	018-Fabric Filter - Low Temp, T<180 Degrees F	Null	1/1/2025	Null	
					sends to	STRU 244	100	Stack/Vent	SV073	11/21/2000	Null	
		EQUI 298	EU129	Tertiary Crusher L19	is controlled by	TREA 67	100	001-Wet Scrubber - High Efficiency	CE060	11/21/2000	Null	
						TREA 252	0	018-Fabric Filter - Low Temp, T<180 Degrees F	Null	1/1/2025	Null	
					sends to	STRU 186	100	Stack/Vent	SV074	11/21/2000	Null	
		EQUI 299	EU130	Tertiary Crusher L20	is controlled by	TREA 68	100	001-Wet Scrubber - High Efficiency	CE061	11/21/2000	Null	
						TREA 253	0	018-Fabric Filter - Low Temp, T<180 Degrees F	Null	1/1/2025	Null	
					sends to	STRU 245	100	Stack/Vent	SV075	11/21/2000	Null	
		EQUI 300	EU131	Tertiary Crusher L21	is controlled by	TREA 69	100	001-Wet Scrubber - High Efficiency	CE062	11/21/2000	Null	
						TREA 250	0	018-Fabric Filter - Low Temp, T<180 Degrees F	Null	1/1/2025	Null	
					sends to	STRU 187	100	Stack/Vent	SV076	11/21/2000	Null	
		EQUI 301	EU132	Tertiary Crusher L22	is controlled by	TREA 70	100	001-Wet Scrubber - High Efficiency	CE063	11/21/2000	Null	
						TREA 254	0	018-Fabric Filter - Low Temp, T<180 Degrees F	Null	1/1/2025	Null	
					sends to	STRU 246	100	Stack/Vent	SV077	11/21/2000	Null	
		EQUI 303	EU134	Tertiary Crusher L24	is controlled by	TREA 72	100	001-Wet Scrubber - High Efficiency	CE065	11/21/2000	Null	
						TREA 257	0	018-Fabric Filter - Low Temp, T<180 Degrees F	Null	1/1/2025	Null	
					sends to	STRU 188	100	Stack/Vent	SV079	11/21/2000	Null	
		EQUI 304	EU135	Tertiary Crusher L25	is controlled by	TREA 73	100	001-Wet Scrubber - High Efficiency	CE066	11/21/2000	Null	
						TREA 258	0	018-Fabric Filter - Low Temp, T<180 Degrees F	Null	1/1/2025	Null	
					sends to	STRU 247	100	Stack/Vent	SV080	11/21/2000	Null	
		EQUI 305	EU136	Tertiary Crusher L26	is controlled by	TREA 74	100	001-Wet Scrubber - High Efficiency	CE067	11/21/2000	Null	
						TREA 259	0	018-Fabric Filter - Low Temp, T<180 Degrees F	Null	1/1/2025	Null	
					sends to	STRU 189	100	Stack/Vent	SV081	11/21/2000	Null	
		EQUI 327	EU054	Secondary Crusher L1	is controlled by	TREA 223	100	018-Fabric Filter - Low Temp, T<180 Degrees F	Null	12/5/2022	Null	
		EQUI 328	EU055	Secondary Crusher L2	is controlled by	TREA 226	100	018-Fabric Filter - Low Temp, T<180 Degrees F	Null	8/18/2023	Null	
						STRU 94	100	Stack/Vent	SV032	11/21/2000	Null	
		EQUI 329	EU057	Secondary Crusher L4	is controlled by	TREA 228	100	018-Fabric Filter - Low Temp, T<180 Degrees F	Null	9/28/2023	Null	
						STRU 96	100	Stack/Vent	SV034	11/21/2000	Null	
		EQUI 335	EU069	Tertiary Crusher L1	is controlled by	TREA 194	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE158	2/3/2010	Null	
						STRU 100	100	Stack/Vent	SV038	11/21/2000	Null	
		EQUI 336	EU071	Tertiary Crusher L3	is controlled by	TREA 196	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE160	7/1/2010	Null	
						STRU 102	100	Stack/Vent	SV040	11/21/2000	Null	
		EQUI 337	EU073	Tertiary Crusher L5	is controlled by	TREA 198	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE162	7/1/2010	Null	
						STRU 103	100	Stack/Vent	SV042	11/21/2000	Null	
		EQUI 338	EU074	Tertiary Crusher L6	is controlled by	TREA 199	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE163	7/1/2010	Null	
						STRU 104	100	Stack/Vent	SV043	11/21/2000	Null	
		EQUI 339	EU093	Secondary Crusher L6	is controlled by	TREA 48	100	001-Wet Scrubber - High Efficiency	CE041	11/21/2000	Null	

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SI Category Equipment	SI Type	Subject Item ID	Delta Designation	Description	Relationship	Related SI ID	% Flow	Related SI Type	Related Delta Designation	Relationship Start Date	Relationship End Date	
Crusher		EQUI 339	EU093	Secondary Crusher L6	is controlled by	TREA 238	0	018-Fabric Filter - Low Temp, T<180 Degrees F	Null	1/1/2025	Null	
					sends to	STRU 223	100	Stack/Vent	SV055	11/21/2000	Null	
		EQUI 340	EU095	Secondary Crusher L8	is controlled by	TREA 50	100	001-Wet Scrubber - High Efficiency	CE043	11/21/2000	Null	
						TREA 239	0	018-Fabric Filter - Low Temp, T<180 Degrees F	Null	1/1/2025	Null	
					sends to	STRU 235	100	Stack/Vent	SV057	11/21/2000	Null	
		EQUI 341	EU096	Secondary Crusher L9	is controlled by	TREA 51	100	001-Wet Scrubber - High Efficiency	CE044	11/21/2000	Null	
						TREA 241	0	018-Fabric Filter - Low Temp, T<180 Degrees F	Null	1/1/2025	Null	
					sends to	STRU 178	100	Stack/Vent	SV058	11/21/2000	Null	
		EQUI 382	EU056	Secondary Crusher L3	is controlled by	TREA 227	100	018-Fabric Filter - Low Temp, T<180 Degrees F	Null	8/29/2023	Null	
					sends to	STRU 95	100	Stack/Vent	SV033	11/21/2000	Null	
		EQUI 388	EU070	Tertiary Crusher L2	is controlled by	TREA 195	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE159	7/1/2010	Null	
					sends to	STRU 101	100	Stack/Vent	SV039	11/21/2000	Null	
		EQUI 389	EU072	Tertiary Crusher L4	is controlled by	TREA 197	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE161	7/1/2010	Null	
					sends to	STRU 222	100	Stack/Vent	SV041	11/21/2000	Null	
		EQUI 390	EU094	Secondary Crusher L7	is controlled by	TREA 49	100	001-Wet Scrubber - High Efficiency	CE042	11/21/2000	Null	
						TREA 240	0	018-Fabric Filter - Low Temp, T<180 Degrees F	Null	1/1/2025	Null	
					sends to	STRU 234	100	Stack/Vent	SV056	11/21/2000	Null	
		EQUI 673	EU402	Tertiary Crusher Line 28 New	is controlled by	TREA 76	100	001-Wet Scrubber - High Efficiency	CE069	9/15/2017	Null	
						TREA 256	0	018-Fabric Filter - Low Temp, T<180 Degrees F	Null	1/1/2025	Null	
					sends to	STRU 190	100	Stack/Vent	SV083	5/31/2012	Null	
		EQUI 674	EU405	Replacement Tertiary Crusher L23 (Metso)	is controlled by	TREA 71	100	001-Wet Scrubber - High Efficiency	CE064	9/15/2017	Null	
						TREA 255	0	018-Fabric Filter - Low Temp, T<180 Degrees F	Null	1/1/2025	Null	
					sends to	STRU 224	100	Stack/Vent	SV078	9/15/2017	Null	
		EQUI 675	EU406	Replacement Tertiary Crusher L27 (Metso)	is controlled by	TREA 75	100	001-Wet Scrubber - High Efficiency	CE068	11/30/2016	Null	
						TREA 260	0	018-Fabric Filter - Low Temp, T<180 Degrees F	Null	1/1/2025	Null	
					sends to	STRU 248	100	Stack/Vent	SV082	11/30/2016	Null	
	Data Acquisition System	EQUI 718	Null	Agglomerator Lines 3-7 DAS	receives from	EQUI 256	Null	Continuous Emission Monitor	MR001	1/1/2007	Null	
						EQUI 257	Null	Continuous Emission Monitor	MR001	7/1/2008	Null	
						EQUI 258	Null	Continuous Emission Monitor	MR003	1/1/2007	Null	
						EQUI 259	Null	Continuous Emission Monitor	MR003	7/1/2008	Null	
						EQUI 260	Null	Continuous Emission Monitor	MR004	2/4/2011	Null	
						EQUI 261	Null	Continuous Emission Monitor	MR004	2/4/2011	Null	
						EQUI 262	Null	Continuous Emission Monitor	MR005	2/4/2011	Null	
						EQUI 263	Null	Continuous Emission Monitor	MR005	2/4/2011	Null	
						EQUI 264	Null	Continuous Emission Monitor	MR002	1/1/2007	Null	
						EQUI 265	Null	Continuous Emission Monitor	MR002	7/1/2008	Null	
						EQUI 713	Null	Continuous Emission Monitor	Null	1/1/2007	Null	
						EQUI 714	Null	Continuous Emission Monitor	Null	1/1/2007	Null	
						EQUI 715	Null	Continuous Emission Monitor	Null	1/1/2007	Null	

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SI Category Equipment	SI Type	Subject Item ID	Delta Designation	Description	Relationship	Related SI ID	% Flow	Related SI Type	Related Delta Designation	Relationship Start Date	Relationship End Date	
	Data Acquisition System	EQUI 718	Null	Agglomerator Lines 3-7 DAS	receives from	EQUI 716	Null	Continuous Emission Monitor	Null	2/4/2011	Null	
						EQUI 717	Null	Continuous Emission Monitor	Null	2/4/2011	Null	
		EQUI 726	Null	Agglomerator Lines 3-7 Parameter DAS	receives from	EQUI 721	Null	Parametric Monitor	Null	10/1/2006	Null	
						EQUI 722	Null	Parametric Monitor	Null	10/1/2006	Null	
						EQUI 723	Null	Parametric Monitor	Null	10/1/2006	Null	
						EQUI 724	Null	Parametric Monitor	Null	10/1/2006	Null	
						EQUI 725	Null	Parametric Monitor	Null	10/1/2006	Null	
		EQUI 206	EU022	Step I Coarse Crusher Pan Feeders	is controlled by	TREA 231	100	018-Fabric Filter - Low Temp, T<180 Degrees F	Null	9/20/2024	Null	
					sends to	STRU 210	100	Stack/Vent	SV016	11/21/2000	Null	
		EQUI 207	EU023	Step I Coarse Crusher Pan Feeders	is controlled by	TREA 231	100	018-Fabric Filter - Low Temp, T<180 Degrees F	Null	9/20/2024	Null	
					sends to	STRU 210	100	Stack/Vent	SV016	11/21/2000	Null	
		EQUI 208	EU024	Step II Coarse Crusher Pan Feeders	is controlled by	TREA 232	100	018-Fabric Filter - Low Temp, T<180 Degrees F	Null	12/19/2024	Null	
					sends to	STRU 195	100	Stack/Vent	SV017	11/21/2000	Null	
	Feeder	EQUI 281	EU026	Step III Coarse Crusher Pan Feeders	is controlled by	TREA 243	0	018-Fabric Filter - Low Temp, T<180 Degrees F	Null	1/1/2025	Null	
					is controlled in parallel by	TREA 120	50	001-Wet Scrubber - High Efficiency	CE006	11/21/2000	Null	
						TREA 121	50	001-Wet Scrubber - High Efficiency	CE007	11/21/2000	Null	
					sends to	STRU 211	100	Stack/Vent	SV018	11/21/2000	Null	
		EQUI 351	EU229	L3 Feeder 041/046 Belts	is controlled by	TREA 175	100	001-Wet Scrubber - High Efficiency	CE090	11/21/2000	Null	
					sends to	STRU 122	100	Stack/Vent	SV106	11/21/2000	Null	
		EQUI 374	EU025	Step II Coarse Crusher Pan Feeders	is controlled by	TREA 231	0	018-Fabric Filter - Low Temp, T<180 Degrees F	Null	1/1/2025	Null	
						TREA 232	100	018-Fabric Filter - Low Temp, T<180 Degrees F	Null	12/19/2024	Null	
					sends to	STRU 195	100	Stack/Vent	SV017	11/21/2000	Null	
		EQUI 375	EU027	Step III Coarse Crusher Pan Feeders	is controlled by	TREA 243	0	018-Fabric Filter - Low Temp, T<180 Degrees F	Null	1/1/2025	Null	
					is controlled in parallel by	TREA 120	50	001-Wet Scrubber - High Efficiency	CE006	11/21/2000	Null	
						TREA 121	50	001-Wet Scrubber - High Efficiency	CE007	11/21/2000	Null	
					sends to	STRU 211	100	Stack/Vent	SV018	11/21/2000	Null	
	Furnace	EQUI 282	EU028	Zinc Melt Furnace	sends to	STRU 212	100	Stack/Vent	SV019	11/21/2000	Null	
		EQUI 311	EU142	Zinc Melt Furnace	sends to	STRU 250	100	Stack/Vent	SV086	11/21/2000	Null	
		EQUI 312	EU143	Zinc Melt Furnace	sends to	STRU 250	100	Stack/Vent	SV086	11/21/2000	Null	
		EQUI 376	EU032	Zinc Melt Furnace	sends to	STRU 213	100	Stack/Vent	SV020	11/21/2000	Null	
	Hopper	EQUI 278	EU300	S3 Ben storage+unloading hopper	is controlled in parallel by	TREA 89	50	018-Fabric Filter - Low Temp, T<180 Degrees F	CE142	2/26/2003	Null	
						TREA 135	50	018-Fabric Filter - Low Temp, T<180 Degrees F	CE118	11/21/2000	Null	
					sends to	STRU 113	50	Stack/Vent	SV193	2/26/2003	Null	
						STRU 139	50	Stack/Vent	SV139	11/21/2000	Null	
		EQUI 684	Null	Coal Unloading Hopper	sends to	STRU 171	100	Stack/Vent	SV181	1/1/1978	Null	
		EQUI 705	EU393	Limestone Dump Pocket	is controlled by	TREA 90	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE143	2/26/2003	Null	
					sends to	STRU 253	100	Stack/Vent	SV194	2/26/2003	Null	
	Kiln	EQUI 3	EU315	L6 Rotary Kiln	is controlled by	TREA 143	100	001-Wet Scrubber - High Efficiency	CE126	11/21/2000	Null	
					is monitored by	EQUI 260	Null	Continuous Emission Monitor	MR004	2/4/2011	Null	

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SI Category Equipment	SI Type Kiln	Subject Item ID	Delta Designation	Description	Relationship	Related SI ID	% Flow	Related SI Type	Related Delta Designation	Relationship Start Date	Relationship End Date	
		EQUI 3	EU315	L6 Rotary Kiln	is monitored by	EQUI 261	Null	Continuous Emission Monitor	MR004	2/4/2011	Null	
						EQUI 716	Null	Continuous Emission Monitor	Null	2/4/2011	Null	
						EQUI 724	Null	Parametric Monitor	Null	10/1/2006	Null	
					sends to	EQUI 718	Null	Data Acquisition System	Null	2/4/2011	Null	
						EQUI 726	Null	Data Acquisition System	Null	10/1/2006	Null	
						STRU 155	100	Stack/Vent	SV144	11/21/2000	Null	
		EQUI 146	EU225	L3 Rotary Kiln	is controlled by	TREA 224	100	001-Wet Scrubber - High Efficiency	CE147	1/1/2005	Null	
					is monitored by	EQUI 256	Null	Continuous Emission Monitor	MR001	1/1/2007	Null	
						EQUI 257	Null	Continuous Emission Monitor	MR001	1/1/2007	Null	
						EQUI 713	Null	Continuous Emission Monitor	Null	1/1/2007	Null	
						EQUI 721	Null	Parametric Monitor	Null	10/1/2006	Null	
					sends to	EQUI 718	Null	Data Acquisition System	Null	1/1/2007	Null	
						EQUI 726	Null	Data Acquisition System	Null	10/1/2006	Null	
						STRU 225	100	Stack/Vent	SV103	11/21/2000	Null	
		EQUI 179	EU334	L7 Rotary Kiln	is controlled by	TREA 151	100	001-Wet Scrubber - High Efficiency	CE136	11/21/2000	Null	
					is monitored by	EQUI 262	Null	Continuous Emission Monitor	MR005	2/4/2011	Null	
						EQUI 263	Null	Continuous Emission Monitor	MR005	2/4/2011	Null	
						EQUI 717	Null	Continuous Emission Monitor	Null	2/4/2011	Null	
						EQUI 725	Null	Parametric Monitor	Null	10/1/2006	Null	
					sends to	EQUI 718	Null	Data Acquisition System	Null	2/4/2011	Null	
						EQUI 726	Null	Data Acquisition System	Null	10/1/2006	Null	
						STRU 69	100	Stack/Vent	SV151	11/21/2000	Null	
		EQUI 279	EU261	L4 Rotary Kiln	is controlled by	TREA 37	100	001-Wet Scrubber - High Efficiency	CE103	11/21/2000	Null	
					is monitored by	EQUI 264	Null	Continuous Emission Monitor	MR002	1/1/2007	Null	
						EQUI 265	Null	Continuous Emission Monitor	MR002	7/1/2008	Null	
						EQUI 714	Null	Continuous Emission Monitor	Null	1/1/2007	Null	
						EQUI 722	Null	Parametric Monitor	Null	10/1/2006	Null	
					sends to	EQUI 718	Null	Data Acquisition System	Null	1/1/2007	Null	
						EQUI 726	Null	Data Acquisition System	Null	10/1/2006	Null	
						STRU 208	100	Stack/Vent	SV118	11/21/2000	Null	
		EQUI 280	EU282	L5 Rotary Kiln	is controlled by	TREA 38	100	001-Wet Scrubber - High Efficiency	CE113	11/21/2000	Null	
					is monitored by	EQUI 258	Null	Continuous Emission Monitor	MR003	1/1/2007	Null	
						EQUI 259	Null	Continuous Emission Monitor	MR003	7/1/2008	Null	
						EQUI 715	Null	Continuous Emission Monitor	Null	1/1/2007	Null	
						EQUI 723	Null	Parametric Monitor	Null	10/1/2006	Null	
					sends to	EQUI 718	Null	Data Acquisition System	Null	1/1/2007	Null	
						EQUI 726	Null	Data Acquisition System	Null	10/1/2006	Null	
						STRU 60	100	Stack/Vent	SV127	11/21/2000	Null	
	Loading-Unloading Equipment	EQUI 127	EU366	Step III Pellet Loadout	sends to	STRU 83	100	Stack/Vent	SV180	11/21/2000	Null	

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SI Category Equipment	SI Type	Subject Item ID	Delta Designation	Description	Relationship	Related SI ID	% Flow	Related SI Type	Related Delta Designation	Relationship Start Date	Relationship End Date	
Equipment	Loading-Unloading Equipment	EQUI 359	EU243	S1,2 Bentonite Unloading	is controlled by	TREA 211	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE175	3/31/2011	Null	
					sends to	STRU 125	100	Stack/Vent	SV112	3/31/2011	Null	
	Material Handling Equipment	EQUI 108	EU340	Step I 043/044 Conveyor Transfer	sends to	STRU 71	100	Stack/Vent	SV155	11/21/2000	Null	
		EQUI 124	EU359	Step III 043/044 Conveyor Transfer	sends to	STRU 80	100	Stack/Vent	SV174	11/21/2000	Null	
		EQUI 125	EU361	Step III 043/044 Conveyor Transfer	sends to	STRU 81	100	Stack/Vent	SV176	11/21/2000	Null	
		EQUI 126	EU363	Step III 044-6/044-7 Conveyor Transfer	sends to	STRU 82	100	Stack/Vent	SV178	11/21/2000	Null	
		EQUI 188	EU360	Step III 043/044 Conveyor Transfer	sends to	STRU 228	100	Stack/Vent	SV175	11/21/2000	Null	
		EQUI 189	EU362	Step III 043/044 Conveyor Transfer	sends to	STRU 169	100	Stack/Vent	SV177	11/21/2000	Null	
		EQUI 190	EU364	Step III 044-6/044-7 Conveyor Transfer	sends to	STRU 82	100	Stack/Vent	SV178	11/21/2000	Null	
		EQUI 191	EU365	Step III 044-6/044-7 Conveyor Transfer	sends to	STRU 170	100	Stack/Vent	SV179	11/21/2000	Null	
		EQUI 266	EU396	Hill Wood Products system	is controlled by	TREA 171	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE144	11/21/2000	Null	
					sends to	STRU 259	100	Stack/Vent	SV195	11/21/2000	Null	
		EQUI 270	EU339	Step I 043/044 Conveyor Transfer	sends to	STRU 158	100	Stack/Vent	SV154	11/21/2000	Null	
		EQUI 325	EU048	Surge Pile/Reclaim 011-01	is controlled by	TREA 127	100	001-Wet Scrubber - High Efficiency	CE013	11/21/2000	Null	
						TREA 236	0	018-Fabric Filter - Low Temp, T<180 Degrees F	Null	1/1/2025	Null	
					sends to	STRU 218	100	Stack/Vent	SV026	11/21/2000	Null	
		EQUI 704	EU395	Limestone Conveyor Transfer 2	is controlled by	TREA 214	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE229	1/16/2016	Null	
					sends to	STRU 249	100	Stack/Vent	SV084	11/21/2000	Null	
	Other Combustion	EQUI 712	Null	Burnout Oven	sends to	STRU 176	100	Stack/Vent	SV190	12/31/1972	Null	
	Other Emission Unit	EQUI 373	EU389	Electric Shop Curing Oven (new)	sends to	STRU 175	100	Stack/Vent	SV189	11/21/2000	Null	
		EQUI 707	Null	Line 3 Waste Gas Cyclone	is controlled by	TREA 224	100	001-Wet Scrubber - High Efficiency	CE147	6/27/1905	Null	
		EQUI 708	Null	Line 4 Waste Gas Cyclone	is controlled by	TREA 37	100	001-Wet Scrubber - High Efficiency	CE103	1/1/1972	Null	
		EQUI 709	Null	Line 5 Waste Gas Cyclone	is controlled by	TREA 38	100	001-Wet Scrubber - High Efficiency	CE113	1/1/1972	Null	
		EQUI 710	Null	Line 6 Waste Gas Cyclone	is controlled by	TREA 143	100	001-Wet Scrubber - High Efficiency	CE126	1/1/1978	Null	
		EQUI 711	Null	Line 7 Waste Gas Cyclone	is controlled by	TREA 151	100	001-Wet Scrubber - High Efficiency	CE136	1/1/1978	Null	
	Process Heater	EQUI 255	EU401	Heaters (25 units, Ltr 8/10/01)	sends to	STRU 252	100	Stack/Vent	SV198	11/7/2003	Null	
	Reciprocating IC Engine	EQUI 274	EU216	Diesel Generator	sends to	STRU 229	100	Stack/Vent	SV099	11/21/2000	3/18/2024	
		EQUI 671	EU404	Diesel Generator	sends to	STRU 119	100	Stack/Vent	SV098	12/22/2016	Null	
		EQUI 672	EU413	New Emergency Generator	sends to	STRU 262	100	Stack/Vent	SV201	12/1/2021	Null	
		EQUI 688	Null	Utility Plant Diesel Generator S1	sends to	STRU 147	100	Stack/Vent	SV006	10/2/1969	Null	
		EQUI 689	Null	Utility Plant Diesel Generator S3	sends to	STRU 194	100	Stack/Vent	SV008	10/9/1978	Null	
		EQUI 690	Null	Utility Plant Diesel Pump	sends to	STRU 148	100	Stack/Vent	SV009	1/1/1972	Null	
		EQUI 691	Null	Diesel Generator	sends to	STRU 151	100	Stack/Vent	SV012	1/1/1972	Null	
		EQUI 692	Null	Diesel Generator	sends to	STRU 172	100	Stack/Vent	SV183	1/1/1972	Null	
		EQUI 693	Null	Diesel Generator	sends to	STRU 85	100	Stack/Vent	SV184	1/1/1972	Null	
		EQUI 694	Null	Diesel Generator	sends to	STRU 173	100	Stack/Vent	SV185	10/9/1978	Null	
		EQUI 695	Null	Diesel Generator	sends to	STRU 174	100	Stack/Vent	SV186	10/9/1978	Null	
		EQUI 696	Null	Diesel Generator	sends to	STRU 220	100	Stack/Vent	SV029	1/1/1972	Null	
		EQUI 703	Null	Fire Hall Emergency Generator	sends to	STRU 270	100	Stack/Vent	Null	6/1/2023	Null	

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	Reciprocating IC Engine	EQUI 706	Null	Step II Agglomerator Emergency Generator	sends to	STRU 229	100	Stack/Vent	SV099	9/1/2024	Null	
	Screens	EQUI 46	EU399	L4 Pellet Scrn Fine Belt	is controlled by	TREA 108	100	001-Wet Scrubber - High Efficiency	CE106	2/26/2003	Null	
					sends to	STRU 230	100	Stack/Vent	SV122	2/26/2003	Null	
		EQUI 273	EU400	L5 Pellet Scrn Fine Belt	is controlled by	TREA 133	100	001-Wet Scrubber - High Efficiency	CE116	11/30/2004	Null	
					sends to	STRU 256	100	Stack/Vent	SV131	11/30/2004	Null	
	Silo/Bin	EQUI 13	EU116	Tertiary Storage 006-080 Bin	is controlled by	TREA 65	100	001-Wet Scrubber - High Efficiency	CE058	11/21/2000	Null	
						TREA 269	0	018-Fabric Filter - Low Temp, T<180 Degrees F	Null	1/1/2025	Null	
					sends to	STRU 185	100	Stack/Vent	SV072	11/21/2000	Null	
		EQUI 14	EU118	Tertiary Storage 006-080 Bin	is controlled by	TREA 65	100	001-Wet Scrubber - High Efficiency	CE058	11/21/2000	Null	
						TREA 269	0	018-Fabric Filter - Low Temp, T<180 Degrees F	Null	1/1/2025	Null	
					sends to	STRU 185	100	Stack/Vent	SV072	11/21/2000	Null	
		EQUI 15	EU120	Tertiary Storage 006-080 Bin	is controlled by	TREA 65	100	001-Wet Scrubber - High Efficiency	CE058	11/21/2000	Null	
						TREA 269	0	018-Fabric Filter - Low Temp, T<180 Degrees F	Null	1/1/2025	Null	
					sends to	STRU 185	100	Stack/Vent	SV072	11/21/2000	Null	
		EQUI 19	EU160	Storage Bin L3,4	is controlled by	TREA 189	100	001-Wet Scrubber - High Efficiency	CE153	11/21/2000	Null	
					sends to	STRU 114	100	Stack/Vent	SV089	11/21/2000	Null	
		EQUI 20	EU162	Storage Bin L5,6	is controlled by	TREA 190	100	001-Wet Scrubber - High Efficiency	CE154	12/31/2006	Null	
					sends to	STRU 193	100	Stack/Vent	SV090	11/21/2000	Null	
		EQUI 21	EU165	Storage Bin L5,6	is controlled by	TREA 190	100	001-Wet Scrubber - High Efficiency	CE154	12/31/2006	Null	
					sends to	STRU 193	100	Stack/Vent	SV090	11/21/2000	Null	
		EQUI 22	EU168	Storage Bin L5,6	is controlled by	TREA 190	100	001-Wet Scrubber - High Efficiency	CE154	12/31/2006	Null	
					sends to	STRU 193	100	Stack/Vent	SV090	11/21/2000	Null	
		EQUI 23	EU171	Storage Bin L7,8	is controlled by	TREA 191	100	001-Wet Scrubber - High Efficiency	CE155	12/31/2006	Null	
					sends to	STRU 115	100	Stack/Vent	SV091	11/21/2000	Null	
		EQUI 24	EU174	Storage Bin L7,8	is controlled by	TREA 191	100	001-Wet Scrubber - High Efficiency	CE155	12/31/2006	Null	
					sends to	STRU 115	100	Stack/Vent	SV091	11/21/2000	Null	
		EQUI 25	EU177	Storage Bin L9,10	is controlled by	TREA 192	100	001-Wet Scrubber - High Efficiency	CE156	12/31/2006	Null	
					sends to	STRU 116	100	Stack/Vent	SV092	11/21/2000	Null	
		EQUI 26	EU179	Storage Bin L9,10	is controlled by	TREA 192	100	001-Wet Scrubber - High Efficiency	CE156	12/31/2006	Null	
					sends to	STRU 116	100	Stack/Vent	SV092	11/21/2000	Null	
		EQUI 27	EU269	L5 Bentonite Day Bins	is controlled by	TREA 110	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE107	11/21/2000	Null	
		EQUI 28	EU270	L5 Bentonite Day Bins	is controlled by	TREA 110	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE107	11/21/2000	Null	
		EQUI 29	EU271	L5 Bentonite Day Bins	is controlled by	TREA 110	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE107	11/21/2000	Null	
		EQUI 30	EU272	L5 Bentonite Day Bins	is controlled by	TREA 110	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE107	11/21/2000	Null	
		EQUI 54	EU068	Tertiary Storage Bin 1-4	is controlled by	TREA 200	50	018-Fabric Filter - Low Temp, T<180 Degrees F	CE164	11/21/2000	Null	
						TREA 201	50	018-Fabric Filter - Low Temp, T<180 Degrees F	CE165	11/21/2000	Null	
					sends to	STRU 105	50	Stack/Vent	SV044	11/21/2000	Null	
						STRU 106	50	Stack/Vent	SV045	11/21/2000	Null	
		EQUI 65	EU085	Tertiary Crusher 080 Bins 5-8	is controlled by	TREA 208	50	018-Fabric Filter - Low Temp, T<180 Degrees F	CE172	11/21/2000	Null	

Relationships

AI ID (Name): 2476 (US Steel Corp - MinnTac)

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SI Category Equipment	SI Type Silo/Bin	Subject Item ID	Delta Designation	Description	Relationship	Related SI ID	% Flow	Related SI Type	Related Delta Designation	Relationship Start Date	Relationship End Date	
		EQUI 65	EU085	Tertiary Crusher 080 Bins 5-8	is controlled by	TREA 209	50	018-Fabric Filter - Low Temp, T<180 Degrees F	CE173	11/21/2000	Null	
					sends to	STRU 231	50	Stack/Vent	SV052	11/21/2000	Null	
						STRU 232	50	Stack/Vent	SV053	11/21/2000	Null	
		EQUI 66	EU086	Tertiary Crusher 080 Bins 5-8	is controlled by	TREA 202	50	018-Fabric Filter - Low Temp, T<180 Degrees F	CE166	11/21/2020	Null	
						TREA 203	50	018-Fabric Filter - Low Temp, T<180 Degrees F	CE167	11/21/2000	Null	
					sends to	STRU 107	50	Stack/Vent	SV046	11/21/2000	Null	
		EQUI 67	EU087	Tertiary Crusher 080 Bins 5-8		STRU 108	50	Stack/Vent	SV047	11/21/2000	Null	
					is controlled by	TREA 204	50	018-Fabric Filter - Low Temp, T<180 Degrees F	CE168	11/21/2000	Null	
						TREA 205	50	018-Fabric Filter - Low Temp, T<180 Degrees F	CE169	11/21/2000	Null	
		EQUI 68	EU088	Tertiary Crusher 080 Bins 5-8	sends to	STRU 109	50	Stack/Vent	SV048	11/21/2000	Null	
						STRU 110	50	Stack/Vent	SV049	11/21/2000	Null	
					is controlled by	TREA 206	50	018-Fabric Filter - Low Temp, T<180 Degrees F	CE170	11/21/2000	Null	
		EQUI 88	EU298	S3 Bentonite Storage		TREA 207	50	018-Fabric Filter - Low Temp, T<180 Degrees F	CE171	11/21/2000	Null	
					sends to	STRU 111	50	Stack/Vent	SV050	11/21/2000	Null	
						STRU 112	50	Stack/Vent	SV051	11/21/2000	Null	
		EQUI 89	EU299	S3 Bentonite Storage	is controlled by	TREA 135	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE118	11/21/2000	Null	
					sends to	STRU 139	100	Stack/Vent	SV139	11/21/2000	Null	
		EQUI 90	EU301	L6 Bentonite Day Bin	is controlled by	TREA 136	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE119	11/21/2000	Null	
					sends to	STRU 139	100	Stack/Vent	SV139	11/21/2000	Null	
		EQUI 91	EU303	L6 Bentonite Day Bin	is controlled by	TREA 136	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE119	11/21/2000	Null	
		EQUI 92	EU304	L6 Bentonite Day Bin	is controlled by	TREA 136	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE119	11/21/2000	Null	
		EQUI 98	EU320	L7 Bentonite Day Bin	is controlled by	TREA 130	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE129	11/21/2000	Null	
		EQUI 99	EU322	L7 Bentonite Day Bin	is controlled by	TREA 130	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE129	11/21/2000	Null	
		EQUI 100	EU324	L7 Bentonite Day Bin	is controlled by	TREA 130	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE129	11/21/2000	Null	
		EQUI 136	EU198	Storage Bin L13,14	is controlled by	TREA 218	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE235	6/22/2022	Null	
					sends to	STRU 198	100	Stack/Vent	SV095	11/21/2000	Null	
		EQUI 137	EU201	Storage Bin L15,16	is controlled by	TREA 187	100	001-Wet Scrubber - High Efficiency	CE149	12/31/2005	Null	
					sends to	STRU 118	100	Stack/Vent	SV096	11/21/2000	Null	
		EQUI 138	EU203	Storage Bin L15,16	is controlled by	TREA 187	100	001-Wet Scrubber - High Efficiency	CE149	12/31/2005	Null	
					sends to	STRU 118	100	Stack/Vent	SV096	11/21/2000	Null	
		EQUI 139	EU206	Storage Bin L15,16	is controlled by	TREA 187	100	001-Wet Scrubber - High Efficiency	CE149	12/31/2005	Null	
					sends to	STRU 118	100	Stack/Vent	SV096	11/21/2000	Null	
		EQUI 140	EU209	Storage Bin L17,18	is controlled by	TREA 216	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE233	10/22/2020	Null	
					sends to	STRU 199	100	Stack/Vent	SV097	11/21/2000	Null	
		EQUI 141	EU212	Storage Bin L17,18	is controlled by	TREA 216	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE233	10/22/2020	Null	
					sends to	STRU 199	100	Stack/Vent	SV097	11/21/2000	Null	
		EQUI 142	EU214	Storage Bin L17,18	is controlled by	TREA 216	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE233	10/22/2020	Null	
					sends to	STRU 199	100	Stack/Vent	SV097	11/21/2000	Null	

Relationships

AI ID (Name): 2476 (US Steel Corp - MinnTac)

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SI Category Equipment	SI Type Silo/Bin	Subject Item ID	Delta Designation	Description	Relationship	Related SI ID	% Flow	Related SI Type	Related Delta Designation	Relationship Start Date	Relationship End Date	
		EQUI 151	EU237	S1 Bentonite Storage Bin	is controlled by	TREA 97	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE093	11/21/2000	Null	
		EQUI 152	EU239	L2,3 Bentonite Day Bin	is controlled by	TREA 98	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE094	11/21/2000	Null	
		EQUI 153	EU242	L2,3 Bentonite Day Bin	is controlled by	TREA 98	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE094	11/21/2000	Null	
		EQUI 154	EU244	S2 Bentonite Storage Bin	is controlled by	TREA 100	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE096	11/21/2000	Null	
		EQUI 155	EU247	L4 Bentonite Day Bins	is controlled by	TREA 101	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE097	11/21/2000	Null	
		EQUI 156	EU249	L4 Bentonite Day Bins	is controlled by	TREA 101	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE097	11/21/2000	Null	
		EQUI 165	EU297	S3 Bentonite Storage	is controlled by	TREA 135	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE118	11/21/2000	Null	
					sends to	STRU 139	100	Stack/Vent	SV139	11/21/2000	Null	
		EQUI 166	EU302	L6 Bentonite Day Bin	is controlled by	TREA 136	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE119	11/21/2000	Null	
		EQUI 167	EU305	L6 Bentonite Day Bin	is controlled by	TREA 136	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE119	11/21/2000	Null	
		EQUI 169	EU321	L7 Bentonite Day Bin	is controlled by	TREA 130	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE129	11/21/2000	Null	
		EQUI 170	EU182	Storage Bin L9,10	is controlled by	TREA 192	100	001-Wet Scrubber - High Efficiency	CE156	12/31/2006	Null	
					sends to	STRU 116	100	Stack/Vent	SV092	11/21/2000	Null	
		EQUI 171	EU185	Storage Bin L11,12	is controlled by	TREA 193	100	001-Wet Scrubber - High Efficiency	CE157	12/31/2006	Null	
					sends to	STRU 197	100	Stack/Vent	SV093	11/21/2000	Null	
		EQUI 172	EU188	Storage Bin L11,12	is controlled by	TREA 193	100	001-Wet Scrubber - High Efficiency	CE157	12/31/2006	Null	
					sends to	STRU 197	100	Stack/Vent	SV093	11/21/2000	Null	
		EQUI 174	EU195	Storage Bin L13,14	is controlled by	TREA 218	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE235	6/22/2022	Null	
					sends to	STRU 198	100	Stack/Vent	SV095	11/21/2000	Null	
		EQUI 175	EU323	L7 Bentonite Day Bin	is controlled by	TREA 130	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE129	11/21/2000	Null	
		EQUI 209	EU148	Storage Bin L1,2	is controlled by	TREA 188	100	001-Wet Scrubber - High Efficiency	CE152	12/31/2006	Null	
					sends to	STRU 192	100	Stack/Vent	SV088	11/21/2000	Null	
		EQUI 210	EU149	Storage Bin L1,2	is controlled by	TREA 188	100	001-Wet Scrubber - High Efficiency	CE152	12/31/2006	Null	
					sends to	STRU 192	100	Stack/Vent	SV088	11/21/2000	Null	
		EQUI 211	EU150	Storage Bin L1,2	is controlled by	TREA 188	100	001-Wet Scrubber - High Efficiency	CE152	12/31/2006	Null	
					sends to	STRU 192	100	Stack/Vent	SV088	11/21/2000	Null	
		EQUI 212	EU151	Storage Bin L1,2	is controlled by	TREA 188	100	001-Wet Scrubber - High Efficiency	CE152	12/31/2006	Null	
					sends to	STRU 192	100	Stack/Vent	SV088	11/21/2000	Null	
		EQUI 213	EU152	Storage Bin L1,2	is controlled by	TREA 188	100	001-Wet Scrubber - High Efficiency	CE152	12/31/2006	Null	
					sends to	STRU 192	100	Stack/Vent	SV088	11/21/2000	Null	
		EQUI 214	EU153	Storage Bin L1,2	is controlled by	TREA 188	100	001-Wet Scrubber - High Efficiency	CE152	12/31/2006	Null	
					sends to	STRU 192	100	Stack/Vent	SV088	11/21/2000	Null	
		EQUI 215	EU154	Storage Bin L1,2	is controlled by	TREA 188	100	001-Wet Scrubber - High Efficiency	CE152	12/31/2006	Null	
					sends to	STRU 192	100	Stack/Vent	SV088	11/21/2000	Null	
		EQUI 216	EU155	Storage Bin L3,4	is controlled by	TREA 189	100	001-Wet Scrubber - High Efficiency	CE153	12/31/2006	Null	
					sends to	STRU 114	100	Stack/Vent	SV089	11/21/2000	Null	
		EQUI 217	EU156	Storage Bin L3,4	is controlled by	TREA 189	100	001-Wet Scrubber - High Efficiency	CE153	12/31/2006	Null	
					sends to	STRU 114	100	Stack/Vent	SV089	11/21/2000	Null	
		EQUI 218	EU157	Storage Bin L3,4	is controlled by	TREA 189	100	001-Wet Scrubber - High Efficiency	CE153	12/31/2006	Null	

Relationships

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SI Category Equipment	SI Type Silo/Bin	Subject Item ID	Delta Designation	Description	Relationship	Related SI ID	% Flow	Related SI Type	Related Delta Designation	Relationship Start Date	Relationship End Date	
		EQUI 218	EU157	Storage Bin L3,4	sends to	STRU 114	100	Stack/Vent	SV089	11/21/2000	Null	
		EQUI 219	EU158	Storage Bin L3,4	is controlled by	TREA 189	100	001-Wet Scrubber - High Efficiency	CE153	12/31/2006	Null	
					sends to	STRU 114	100	Stack/Vent	SV089	11/21/2000	Null	
		EQUI 220	EU159	Storage Bin L3,4	is controlled by	TREA 189	100	001-Wet Scrubber - High Efficiency	CE153	12/31/2006	Null	
					sends to	STRU 114	100	Stack/Vent	SV089	11/21/2000	Null	
		EQUI 221	EU161	Storage Bin L3,4	is controlled by	TREA 189	100	001-Wet Scrubber - High Efficiency	CE153	12/31/2006	Null	
					sends to	STRU 114	100	Stack/Vent	SV089	11/21/2000	Null	
		EQUI 222	EU163	Storage Bin L5,6	is controlled by	TREA 190	100	001-Wet Scrubber - High Efficiency	CE154	12/31/2006	Null	
					sends to	STRU 193	100	Stack/Vent	SV090	11/21/2000	Null	
		EQUI 223	EU164	Storage Bin L5,6	is controlled by	TREA 190	100	001-Wet Scrubber - High Efficiency	CE154	12/31/2006	Null	
					sends to	STRU 193	100	Stack/Vent	SV090	11/21/2000	Null	
		EQUI 224	EU166	Storage Bin L5,6	is controlled by	TREA 190	100	001-Wet Scrubber - High Efficiency	CE154	12/31/2006	Null	
					sends to	STRU 193	100	Stack/Vent	SV090	11/21/2000	Null	
		EQUI 225	EU167	Storage Bin L5,6	is controlled by	TREA 190	100	001-Wet Scrubber - High Efficiency	CE154	12/31/2006	Null	
					sends to	STRU 193	100	Stack/Vent	SV090	11/21/2000	Null	
		EQUI 226	EU169	Storage Bin L7,8	is controlled by	TREA 191	100	001-Wet Scrubber - High Efficiency	CE155	12/31/2006	Null	
					sends to	STRU 115	100	Stack/Vent	SV091	11/21/2000	Null	
		EQUI 227	EU170	Storage Bin L7,8	is controlled by	TREA 191	100	001-Wet Scrubber - High Efficiency	CE155	12/31/2006	Null	
					sends to	STRU 115	100	Stack/Vent	SV091	11/21/2000	Null	
		EQUI 228	EU172	Storage Bin L7,8	is controlled by	TREA 191	100	001-Wet Scrubber - High Efficiency	CE155	12/31/2006	Null	
					sends to	STRU 115	100	Stack/Vent	SV091	11/21/2000	Null	
		EQUI 229	EU173	Storage Bin L7,8	is controlled by	TREA 191	100	001-Wet Scrubber - High Efficiency	CE155	12/31/2006	Null	
					sends to	STRU 115	100	Stack/Vent	SV091	11/21/2000	Null	
		EQUI 230	EU175	Storage Bin L7,8	is controlled by	TREA 191	100	001-Wet Scrubber - High Efficiency	CE155	12/31/2006	Null	
					sends to	STRU 115	100	Stack/Vent	SV091	11/21/2000	Null	
		EQUI 231	EU176	Storage Bin L9,10	is controlled by	TREA 192	100	001-Wet Scrubber - High Efficiency	CE156	12/31/2006	Null	
					sends to	STRU 116	100	Stack/Vent	SV092	11/21/2000	Null	
		EQUI 232	EU178	Storage Bin L9,10	is controlled by	TREA 192	100	001-Wet Scrubber - High Efficiency	CE156	12/31/2006	Null	
					sends to	STRU 116	100	Stack/Vent	SV092	11/21/2000	Null	
		EQUI 233	EU180	Storage Bin L9,10	is controlled by	TREA 192	100	001-Wet Scrubber - High Efficiency	CE156	12/31/2006	Null	
					sends to	STRU 116	100	Stack/Vent	SV092	11/21/2000	Null	
		EQUI 234	EU181	Storage Bin L9,10	is controlled by	TREA 192	100	001-Wet Scrubber - High Efficiency	CE156	12/31/2006	Null	
					sends to	STRU 116	100	Stack/Vent	SV092	11/21/2000	Null	
		EQUI 235	EU183	Storage Bin L11,12	is controlled by	TREA 193	100	001-Wet Scrubber - High Efficiency	CE157	12/31/2006	Null	
					sends to	STRU 197	100	Stack/Vent	SV093	11/21/2000	Null	
		EQUI 236	EU184	Storage Bin L11,12	is controlled by	TREA 193	100	001-Wet Scrubber - High Efficiency	CE157	12/31/2006	Null	
					sends to	STRU 197	100	Stack/Vent	SV093	11/21/2000	Null	
		EQUI 237	EU186	Storage Bin L11,12	is controlled by	TREA 193	100	001-Wet Scrubber - High Efficiency	CE157	12/31/2006	Null	
					sends to	STRU 197	100	Stack/Vent	SV093	11/21/2000	Null	

Relationships

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SI Category Equipment	SI Type Silo/Bin	Subject Item ID	Delta Designation	Description	Relationship	Related SI ID	% Flow	Related SI Type	Related Delta Designation	Relationship Start Date	Relationship End Date	
		EQUI 238	EU187	Storage Bin L11,12	is controlled by	TREA 193	100	001-Wet Scrubber - High Efficiency	CE157	12/31/2006	Null	
					sends to	STRU 197	100	Stack/Vent	SV093	11/21/2000	Null	
		EQUI 239	EU189	Storage Bin L11,12	is controlled by	TREA 193	100	001-Wet Scrubber - High Efficiency	CE157	12/31/2006	Null	
					sends to	STRU 197	100	Stack/Vent	SV093	11/21/2000	Null	
		EQUI 242	EU194	Storage Bin L13,14	is controlled by	TREA 218	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE235	6/22/2022	Null	
					sends to	STRU 198	100	Stack/Vent	SV095	11/21/2000	Null	
		EQUI 243	EU196	Storage Bin L13,14	is controlled by	TREA 218	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE235	6/22/2022	Null	
					sends to	STRU 198	100	Stack/Vent	SV095	11/21/2000	Null	
		EQUI 244	EU197	Storage Bin L13,14	is controlled by	TREA 218	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE235	6/22/2022	Null	
					sends to	STRU 198	100	Stack/Vent	SV095	11/21/2000	Null	
		EQUI 245	EU199	Storage Bin L13,14	is controlled by	TREA 218	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE235	6/22/2022	Null	
					sends to	STRU 198	100	Stack/Vent	SV095	11/21/2000	Null	
		EQUI 246	EU200	Storage Bin L13,14	is controlled by	TREA 218	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE235	6/22/2022	Null	
					sends to	STRU 198	100	Stack/Vent	SV095	11/21/2000	Null	
		EQUI 247	EU202	Storage Bin L15,16	is controlled by	TREA 187	100	001-Wet Scrubber - High Efficiency	CE149	12/31/2005	Null	
					sends to	STRU 118	100	Stack/Vent	SV096	11/21/2000	Null	
		EQUI 248	EU204	Storage Bin L15,16	is controlled by	TREA 187	100	001-Wet Scrubber - High Efficiency	CE149	12/31/2005	Null	
					sends to	STRU 118	100	Stack/Vent	SV096	11/21/2000	Null	
		EQUI 249	EU205	Storage Bin L15,16	is controlled by	TREA 187	100	001-Wet Scrubber - High Efficiency	CE149	12/31/2005	Null	
					sends to	STRU 118	100	Stack/Vent	SV096	11/21/2000	Null	
		EQUI 250	EU207	Storage Bin L15,16	is controlled by	TREA 187	100	001-Wet Scrubber - High Efficiency	CE149	12/31/2005	Null	
					sends to	STRU 118	100	Stack/Vent	SV096	11/21/2000	Null	
		EQUI 251	EU208	Storage Bin L17,18	is controlled by	TREA 216	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE233	10/22/2020	Null	
					sends to	STRU 199	100	Stack/Vent	SV097	11/21/2000	Null	
		EQUI 252	EU210	Storage Bin L17,18	is controlled by	TREA 216	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE233	12/31/2005	Null	
					sends to	STRU 199	100	Stack/Vent	SV097	11/21/2000	Null	
		EQUI 253	EU211	Storage Bin L17,18	is controlled by	TREA 216	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE233	12/31/2005	Null	
					sends to	STRU 199	100	Stack/Vent	SV097	11/21/2000	Null	
		EQUI 254	EU213	Storage Bin L17,18	is controlled by	TREA 216	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE233	12/31/2005	Null	
					sends to	STRU 199	100	Stack/Vent	SV097	11/21/2000	Null	
		EQUI 291	EU117	Tertiary Storage 006-080 Bin	is controlled by	TREA 65	100	001-Wet Scrubber - High Efficiency	CE058	11/21/2000	Null	
						TREA 269	0	018-Fabric Filter - Low Temp, T<180 Degrees F	Null	1/1/2025	Null	
					sends to	STRU 185	100	Stack/Vent	SV072	11/21/2000	Null	
		EQUI 292	EU119	Tertiary Storage 006-080 Bin	is controlled by	TREA 65	100	001-Wet Scrubber - High Efficiency	CE058	11/21/2000	Null	
						TREA 269	0	018-Fabric Filter - Low Temp, T<180 Degrees F	Null	1/1/2025	Null	
					sends to	STRU 185	100	Stack/Vent	SV072	11/21/2000	Null	
		EQUI 293	EU121	Tertiary Storage 006-080 Bin	is controlled by	TREA 65	100	001-Wet Scrubber - High Efficiency	CE058	11/21/2000	Null	
						TREA 269	0	018-Fabric Filter - Low Temp, T<180 Degrees F	Null	1/1/2025	Null	
					sends to	STRU 185	100	Stack/Vent	SV072	11/21/2000	Null	

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SI Category Equipment	SI Type Silo/Bin	Subject Item ID	Delta Designation	Description	Relationship	Related SI ID	% Flow	Related SI Type	Related Delta Designation	Relationship Start Date	Relationship End Date	
		EQUI 316	EU268	L5 Bentonite Day Bins	is controlled by	TREA 110	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE107	11/21/2000	Null	
		EQUI 355	EU236	S1 Bentonite Storage Bin	is controlled by	TREA 97	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE093	11/21/2000	Null	
		EQUI 356	EU238	S1 Bentonite Storage Bin	is controlled by	TREA 97	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE093	11/21/2000	Null	
		EQUI 357	EU240	L2,3 Bentonite Day Bin	is controlled by	TREA 98	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE094	11/21/2000	Null	
		EQUI 358	EU241	L2,3 Bentonite Day Bin	is controlled by	TREA 98	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE094	11/21/2000	Null	
		EQUI 360	EU245	S2 Bentonite Storage Bin	is controlled by	TREA 100	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE096	11/21/2000	Null	
		EQUI 361	EU246	S2 Bentonite Storage Bin	is controlled by	TREA 100	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE096	11/21/2000	Null	
		EQUI 362	EU248	L4 Bentonite Day Bins	is controlled by	TREA 101	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE097	11/21/2000	Null	
		EQUI 363	EU250	L4 Bentonite Day Bins	is controlled by	TREA 101	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE097	11/21/2000	Null	
		EQUI 364	EU251	L4 Bentonite Day Bins	is controlled by	TREA 101	100	018-Fabric Filter - Low Temp, T<180 Degrees F	CE097	11/21/2000	Null	
		EQUI 386	EU065	Tertiary Storage Bin 1-4	is controlled by	TREA 194	50	018-Fabric Filter - Low Temp, T<180 Degrees F	CE158	11/21/2000	Null	
						TREA 195	50	018-Fabric Filter - Low Temp, T<180 Degrees F	CE159	11/21/2000	Null	
					sends to	STRU 100	50	Stack/Vent	SV038	11/21/2000	Null	
						STRU 101	50	Stack/Vent	SV039	11/21/2000	Null	
		EQUI 387	EU067	Tertiary Storage Bin 1-4	is controlled by	TREA 198	50	018-Fabric Filter - Low Temp, T<180 Degrees F	CE162	11/21/2000	Null	
						TREA 199	50	018-Fabric Filter - Low Temp, T<180 Degrees F	CE163	11/21/2000	Null	
					sends to	STRU 103	50	Stack/Vent	SV042	11/21/2000	Null	
						STRU 104	50	Stack/Vent	SV043	11/21/2000	Null	
		EQUI 392	EU102	Conveyor Transfer 001 to 070	is controlled by	TREA 54	100	001-Wet Scrubber - High Efficiency	CE047	11/21/2000	Null	
						TREA 234	0	018-Fabric Filter - Low Temp, T<180 Degrees F	Null	1/1/2025	Null	
					sends to	STRU 237	100	Stack/Vent	SV061	11/21/2000	Null	
Fugitive	Unpaved Roads	FUGI 8	FS002	Unpaved road for heavy-duty vehicles	is controlled by	TREA 268	100	099-Other	Null	1/1/1967	Null	
		FUGI 20	FS003	Unpaved road for secondary vehicles	is controlled by	TREA 268	100	099-Other	Null	1/1/1967	Null	

CEMs

AI ID (Name): 2476 (US Steel Corp - MinnTac)

Activity: IND20070001

Subject Item ID	Delta Designation	Description	Manufacturer	Model	Serial Number	Parameter	Primary or Backup?	Bypass Capability?	Install Date (CEMs/COMs)	Certification Date	Certification Basis	Span (ppm)	System Full Scale Value (ppm)	
EQUI 256	MR001	NOx CEMS at Line 3 Waste Gas Stack	Ametech Western Research	920	AX-920-9640-1	Nitrogen Oxides	Primary	Yes	1/1/2007	1/24/2007	40 CFR Pt 60	500	Null	
EQUI 257	MR001	SO2 CEMS at Line 3 Waste Gas Stack	Ametech Western Research	920	AX-920-9640-1	Sulfur Dioxide	Primary	Yes	7/1/2008	7/10/2008	40 CFR Pt 60	100	Null	
EQUI 258	MR003	NOx CEMS at Line 5 Waste Gas Stack	Ametech Western Research	920	AX-920-9640-3	Nitrogen Oxides	Primary	Yes	1/1/2007	2/1/2007	40 CFR Pt 60	500	Null	
EQUI 259	MR003	SO2 CEMS at Line 5 Waste Gas Stack (SV 127)	Ametech Western Research	920	AX-920-9640-3	Sulfur Dioxide	Primary	Yes	7/1/2008	7/14/2008	40 CFR Pt 60	100	Null	
EQUI 260	MR004	SO2 CEMS at Line 6 Waste Gas Stack (SV 144)	Ametech Western Research	920	ZA-920-10336..	Sulfur Dioxide	Primary	Yes	2/4/2011	2/24/2011	40 CFR Pt 60	100	Null	
EQUI 261	MR004	NOx CEMS at Line 6 Waste Gas Stack (SV 144)	Amtech Western Research	920	ZA-920-10336..	Nitrogen Oxides	Primary	Yes	2/4/2011	2/24/2011	40 CFR Pt 60	Null	Null	
EQUI 262	MR005	SO2 CEMS at Line 7 Waste Gas Stack (SV 151)	Ametech Western Research	920	ZA-920-10336..	Sulfur Dioxide	Primary	Yes	2/4/2011	2/24/2011	40 CFR Pt 60	500	Null	
EQUI 263	MR005	NOx CEMS at Line 7 Waste Gas Stack (SV 151)	Ametech Western Research	920	ZA-920-10336..	Nitrogen Oxides	Primary	Yes	2/4/2011	1/14/2011	40 CFR Pt 60	100	Null	
EQUI 264	MR002	SO2 CEMS at Line 4 Waste Gas Stack (SV 118)	Ametech Western Research	920	AX-920-9640-2	Sulfur Dioxide	Primary	Yes	7/1/2008	7/14/2008	40 CFR Pt 60	100	Null	
EQUI 265	MR002	NOx CEMS at Line 4 Waste Gas Stack (SV 118)	Ametech Western Research	920	AX-920-9640-2	Nitrogen Oxides	Primary	Yes	1/1/2007	1/31/2007	40 CFR Pt 60	500	Null	
EQUI 713	Null	L3 Air Flow Meter	Sick Maihak	Flowsic 100	08118511	Air Flow Rate	Primary	Yes	1/1/2007	1/24/2007	Minn. Rule 7017	Null	Null	
EQUI 714	Null	L4 Air Flow Meter	Sick Maihak	Flowsic 100	08118512	Air Flow Rate	Primary	No	1/1/2007	1/24/2007	Minn. Rule 7017	Null	Null	
EQUI 715	Null	L5 Air Flow Meter	Sick Maihak	Flowsic 100	08118513	Air Flow Rate	Primary	Yes	1/1/2007	1/24/2007	Minn. Rule 7017	Null	Null	
EQUI 716	Null	L6 Air Flow Meter	Sick Maihak	Flowsic 100	02458735	Air Flow Rate	Primary	Yes	2/4/2011	2/24/2011	Minn. Rule 7017	Null	Null	
EQUI 717	Null	L7 Air Flow Meter	Sick Maihak	Flowsic 100	12138515	Air Flow Rate	Primary	Yes	2/4/2011	2/24/2011	Minn. Rule 7017	Null	Null	

PMs

AI ID (Name): 2476 (US Steel Corp - MinnTac)
Activity: IND20070001

Subject Item ID	Delta Designation	Description	Manufacturer	Model	Serial Number	Parameter Monitored	Bypass Capability? (parametric)	Install Date (parametric)	
EQUI 721	Null	Line 3 Kiln Exit Temp Continuous Monitor	Null	Null	Null	Temperature	Null	10/1/2006	
EQUI 722	Null	Line 4 Kiln Exit Temp Continuous Monitor	Null	Null	Null	Temperature	Null	10/1/2006	
EQUI 723	Null	Line 5 Kiln Exit Temp Continuous Monitor	Null	Null	Null	Temperature	Null	10/1/2006	
EQUI 724	Null	Line 6 Kiln Exit Temp Continuous Monitor	Null	Null	Null	Temperature	Null	10/1/2006	
EQUI 725	Null	Line 7 Kiln Exit Temp Continuous Monitor	Null	Null	Null	Temperature	Null	10/1/2006	

DAS

AI ID (Name): 2476 (US Steel Corp - MinnTac)
Activity: IND20070001

Subject Item ID	Delta Designation	Description	Manufacturer	Model	Serial Number	Primary or Backup? (DASs)	Install Date (DASs)	
EQUI 718	Null	Agglomerator Lines 3-7 DAS	VIM technologies	CEMLink6	6.2.250.16	Primary	12/3/2018	
EQUI 726	Null	Agglomerator Lines 3-7 Parameter DAS	U.S Steel	MTC_Agglomerator/GCP	n/a	Primary	10/1/2006	

FUGI

AI ID (Name): 2476 (US Steel Corp - MinnTac)
Activity: IND20070001

Subject Item Type	Subject Item ID	Delta Designation	Description	Install Year	Pollutants Emitted	
Material Handling/ Transfer/ Storage	FUGI 18	FS005	Blasting & material handling	1967	Particulate Matter	
					PM < 2.5 micron	
					PM < 10 micron	
	FUGI 36	Null	Contractor Activities	1969	Particulate Matter	
	FUGI 37	FS018	Step III crude ore stockpile	Null	Null	
Open Air Source	FUGI 16	FS030	Tailings Basin	1969	Particulate Matter	
					PM < 2.5 micron	
					PM < 10 micron	
Piles	FUGI 1	FS015	Group 13 screened pellets stock pile	1978	Particulate Matter	
					PM < 2.5 micron	
					PM < 10 micron	
	FUGI 3	FS012	Coarse tailings stock pile	1969	Particulate Matter	
					PM < 2.5 micron	

FUGI

AI ID (Name): 2476 (US Steel Corp - MinnTac)
Activity: IND20070001

Subject Item Type	Subject Item ID	Delta Designation	Description	Install Year	Pollutants Emitted	
Piles	FUGI 3	FS012	Coarse tailings stock pile	1969	PM < 10 micron	
	FUGI 4	FS010	Ballast fines rock stock pile - east pit	1978	Particulate Matter	
					PM < 2.5 micron	
					PM < 10 micron	
	FUGI 5	FS009	Ballast product rock stock pile - western	1978	Particulate Matter	
					PM < 2.5 micron	
					PM < 10 micron	
	FUGI 6	FS001	Surface overburden stock pile	1967	Particulate Matter	
					PM < 2.5 micron	
					PM < 10 micron	
	FUGI 9	FS025	Crude Ore Stock Pile	1969	Particulate Matter	
					PM < 2.5 micron	
					PM < 10 micron	

FUGI

AI ID (Name): 2476 (US Steel Corp - MinnTac)
Activity: IND20070001

Subject Item Type	Subject Item ID	Delta Designation	Description	Install Year	Pollutants Emitted	
Piles	FUGI 10	FS016	Group 13 screened fines stock pile	1978	Particulate Matter	
					PM < 2.5 micron	
					PM < 10 micron	
	FUGI 11	FS006	Ballast feed rock stock pile - east pit	1978	Particulate Matter	
					PM < 2.5 micron	
					PM < 10 micron	
	FUGI 12	FS026	Waste Rock Stock Pile	1967	Particulate Matter	
					PM < 2.5 micron	
					PM < 10 micron	
	FUGI 14	FS017	Step I/II crude ore stock pile	1969	Particulate Matter	
					PM < 2.5 micron	
					PM < 10 micron	
	FUGI 15	FS021	Step II/III concentrate stock pile	1969	Particulate Matter	

FUGI

AI ID (Name): 2476 (US Steel Corp - MinnTac)
Activity: IND20070001

Subject Item Type	Subject Item ID	Delta Designation	Description	Install Year	Pollutants Emitted	
Piles	FUGI 15	FS021	Step II/III concentrate stock pile	1969	PM < 2.5 micron	
					PM < 10 micron	
	FUGI 17	FS023	Step I/II pellet main stock pile #45	1969	Particulate Matter	
					PM < 2.5 micron	
					PM < 10 micron	
	FUGI 19	FS027	Step I/II Crude Ore Stockpile Temp 72	1999	Particulate Matter	
					PM < 2.5 micron	
					PM < 10 micron	
	FUGI 21	FS028	Step III Crude Ore Stockpile Temp 74	1999	Particulate Matter	
					PM < 2.5 micron	
					PM < 10 micron	
	FUGI 22	FS008	Ballast product rock stock pile - east pit	1978	Particulate Matter	
					PM < 2.5 micron	

FUGI

AI ID (Name): 2476 (US Steel Corp - MinnTac)
Activity: IND20070001

Subject Item Type	Subject Item ID	Delta Designation	Description	Install Year	Pollutants Emitted	
Piles	FUGI 22	FS008	Ballast product rock stock pile - east pit	1978	PM < 10 micron	
	FUGI 23	FS022	Step I/II pellet main stock pile #44	1969	Particulate Matter	
					PM < 2.5 micron	
					PM < 10 micron	
	FUGI 24	FS014	Group 13 feed stock pile	1978	Particulate Matter	
					PM < 2.5 micron	
					PM < 10 micron	
	FUGI 25	FS011	Ballast fines rock stock pile - western	1978	Particulate Matter	
					PM < 2.5 micron	
					PM < 10 micron	
	FUGI 27	FS013	Scrap rod stock pile	1969	Particulate Matter	
					PM < 2.5 micron	
					PM < 10 micron	

FUGI

AI ID (Name): 2476 (US Steel Corp - MinnTac)
Activity: IND20070001

Subject Item Type	Subject Item ID	Delta Designation	Description	Install Year	Pollutants Emitted	
Piles	FUGI 28	FS024	Step III pellet main stock pile	1978	Particulate Matter	
					PM < 2.5 micron	
					PM < 10 micron	
	FUGI 29	FS007	Ballast feed rock stock pile - western	1978	Particulate Matter	
					PM < 2.5 micron	
					PM < 10 micron	
Unpaved Roads	FUGI 8	FS002	Unpaved road for heavy-duty vehicles	1967	Particulate Matter	
					PM < 2.5 micron	
					PM < 10 micron	
	FUGI 20	FS003	Unpaved road for secondary vehicles	1967	Particulate Matter	
					PM < 2.5 micron	
					PM < 10 micron	
	FUGI 26	FS004	Unpaved road for light-duty vehicles	1967	Particulate Matter	

FUGI

AI ID (Name): 2476 (US Steel Corp - MinnTac)

Activity: IND20070001

Subject Item Type	Subject Item ID	Delta Designation	Description	Install Year	Pollutants Emitted	
Unpaved Roads	FUGI 26	FS004	Unpaved road for light-duty vehicles	1967		
					PM < 2.5 micron	
					PM < 10 micron	

Building

AI ID (Name): 2476 (US Steel Corp - MinnTac)
Activity: IND20070001

Subject Item ID	Delta Designation	Description	Height	Units (height)	Length	Units (length)	Width	Units (width)	
STRU 5	BG001	Utility Plant	54	feet	225	feet	125	feet	
STRU 6	BG002	Step I & II Boiler Bldg	43	feet	125	feet	60	feet	
STRU 7	BG003	Step III Boiler Bldg	54	feet	125	feet	105	feet	
STRU 8	BG004	Generator Bldg	43	feet	125	feet	60	feet	
STRU 9	BG005	Mobile Equipment Shop	71	feet	300	feet	155	feet	
STRU 10	BG006	Heating Boilers 1 & 2	45	feet	50	feet	30	feet	
STRU 11	BG007	Emergency Generator Shed	10	feet	10	feet	8	feet	
STRU 12	BG008	Step I & II Coarse Crusher	54	feet	300	feet	200	feet	
STRU 13	BG009	CC Dump Pocket Baghouses	20	feet	65	feet	45	feet	
STRU 14	BG010	Conveyor Transfers	40	feet	225	feet	80	feet	
STRU 15	BG011	Step I & II Zinc Furnaces	54	feet	280	feet	200	feet	
STRU 16	BG012	Step III Coarse Crusher	54	feet	300	feet	200	feet	
STRU 17	BG013	CC Dump Pocket Baghouse	20	feet	65	feet	45	feet	
STRU 18	BG014	Panfeeder to Conveyor	40	feet	225	feet	80	feet	
STRU 19	BG015	Step III Zinc Furnaces	54	feet	280	feet	200	feet	
STRU 20	BG016	Step I & II Turn Bin Area	86	feet	190	feet	110	feet	
STRU 21	BG017	Step I & II Turn Bin	86	feet	190	feet	110	feet	
STRU 22	BG018	Stockpile Reclaim Scrubber House	18	feet	30	feet	20	feet	
STRU 23	BG019	Conveyor	65	feet	220	feet	30	feet	
STRU 24	BG020	Step III Turn Bin Area	65	feet	300	feet	80	feet	
STRU 25	BG021	Step III Turn Bin	65	feet	300	feet	80	feet	
STRU 26	BG022	Transfer House	80	feet	35	feet	35	feet	
STRU 27	BG023	Fines Crusher	120	feet	780	feet	740	feet	
STRU 28	BG024	Step I & II Fines Crusher Bldg	80	feet	560	feet	80	feet	
STRU 29	BG025	Step I Fines Crusher Bldg	120	feet	170	feet	170	feet	
STRU 30	BG026	Step III Fines Crusher Bldg	66	feet	550	feet	120	feet	
STRU 31	BG027	Step III Conveyor Bldg	117	feet	300	feet	40	feet	
STRU 32	BG028	Step III Fines Crusher Bldg	66	feet	220	feet	90	feet	
STRU 33	BG029	Step III Fines Crusher Bldg	112	feet	540	feet	40	feet	

Building

AI ID (Name): 2476 (US Steel Corp - MinnTac)
Activity: IND20070001

Subject Item ID	Delta Designation	Description	Height	Units (height)	Length	Units (length)	Width	Units (width)	
STRU 34	BG030	Concentrator	116	feet	2,200	feet	270	feet	
STRU 35	BG031	Step I & II Concentrator	76	feet	2,200	feet	170	feet	
STRU 36	BG032	Step I Concentrator	116	feet	2,200	feet	60	feet	
STRU 37	BG033	Step I & III Concentrator	116	feet	330	feet	25	feet	
STRU 38	BG034	Agglomerator I & II	98	feet	700	feet	600	feet	
STRU 39	BG035	Step I & II Agglomerator	98	feet	400	feet	150	feet	
STRU 40	BG036	Step I & II Agglomerator	98	feet	400	feet	300	feet	
STRU 41	BG037	Step I & II Agglomerator	95	feet	400	feet	300	feet	
STRU 42	BG038	Step I & II Agglomerator	98	feet	810	feet	200	feet	
STRU 43	BG039	Step I & II Agglomerator	30	feet	245	feet	60	feet	
STRU 44	BG040	Step I & II Agglomerator	20	feet	25	feet	25	feet	
STRU 45	BG041	Step I & II Agglomerator	98	feet	350	feet	45	feet	
STRU 46	BG042	Agglomerator Step III	130	feet	660	feet	400	feet	
STRU 47	BG043	Step III Agglomerator	130	feet	400	feet	250	feet	
STRU 48	BG044	Step III Agglomerator	130	feet	300	feet	120	feet	
STRU 49	BG045	Step III Agglomerator	130	feet	300	feet	40	feet	
STRU 50	BG046	Step III Agglomerator	130	feet	300	feet	210	feet	
STRU 51	BG047	Step III Agglomerator	130	feet	300	feet	35	feet	
STRU 52	BG048	Coal Day Bin	130	feet	30	feet	30	feet	
STRU 53	BG049	Generator Bldg	24	feet	20	feet	20	feet	
STRU 54	BG050	Coal Unloading & Storage Silo	80	feet	40	feet	40	feet	
STRU 55	BG051	Step III Cooling Tower	11.5	feet	18.17	feet	17.08	feet	
STRU 56	BG052	Incinerator	35	feet	40	feet	30	feet	
STRU 57	BG053	Central Shops	65	feet	325	feet	260	feet	
STRU 58	BG054	Central Shop	55	feet	260	feet	240	feet	
STRU 59	BG055	Carpenter's Shop	15	feet	90	feet	20	feet	
STRU 89	BG056	Paint Shop Booth	30	feet	50	feet	40	feet	
STRU 90	BG057	Step I & II Pellet Loadout	95	feet	425	feet	62	feet	
STRU 91	BG058	Step III Pellet Loadout	97	feet	525	feet	60	feet	

Stack/Vents

AI ID (Name): 2476 (US Steel Corp - MinnTac)
Activity: IND20070001

Subject Item ID	Delta Designation	Description	Stack Height (feet)	Stack Diameter (feet)	Stack Length (feet)	Stack Width (feet)	Stack Flow Rate (cubic ft/min)	Discharge Temperature (°F)	Flow Rate/Temp Information Source	Discharge Direction	
STRU 60	SV127	L5 Waste Gas Stack	139.6	14	Null	Null	650,000	115	Estimate	Upwards with no cap on stack/vent	
STRU 61	SV129	L5 Conveyor Transfer Feeder	100	3.16	Null	Null	28,350	110	Estimate	Upwards with no cap on stack/vent	
STRU 64	SV138	S3 Conveyor Transfer	136	3.5	Null	Null	24,500	110	Estimate	Upwards with no cap on stack/vent	
STRU 66	SV143	L6 Grate Discharge	125.25	2.5	Null	Null	15,000	110	Estimate	Upwards with no cap on stack/vent	
STRU 67	SV146	L6 Conveyor Transfer	128	4	Null	Null	46,600	110	Estimate	Upwards with no cap on stack/vent	
STRU 69	SV151	L7 Waste Gas Stack	140	16	Null	Null	600,000	109	Estimate	Upwards with no cap on stack/vent	
STRU 70	SV153	L7 Conveyor Transfer	128	4	Null	Null	24,500	110	Estimate	Upwards with no cap on stack/vent	
STRU 71	SV155	Step I 043/044 Conv. Trans	103	1	Null	Null	470	80	Estimate	Upwards with no cap on stack/vent	
STRU 72	SV157	Step III 042 Conveyor Vent	148	1	Null	Null	470	80	Estimate	Upwards with no cap on stack/vent	
STRU 73	SV160	Step III 044 Conveyor Vent	133	1	Null	Null	4,000	80	Estimate	Upwards with no cap on stack/vent	
STRU 74	SV162	Step III 044 Conveyor Vent	133	1	Null	Null	4,000	80	Estimate	Upwards with no cap on stack/vent	
STRU 75	SV164	Step III 044 Conveyor Vent	133	1	Null	Null	4,000	80	Estimate	Upwards with no cap on stack/vent	
STRU 76	SV166	Step III 044 Conveyor Vent	133	1	Null	Null	4,000	80	Estimate	Upwards with no cap on stack/vent	
STRU 77	SV168	Step III 044 Conveyor Vent	133	1	Null	Null	4,000	80	Estimate	Upwards with no cap on stack/vent	
STRU 78	SV170	Step III 044 Conveyor Vent	133	1	Null	Null	4,000	80	Estimate	Upwards with no cap on stack/vent	
STRU 79	SV172	Step III 044 Conveyor Vent	133	1	Null	Null	4,000	80	Estimate	Upwards with no cap on stack/vent	
STRU 80	SV174	Step III 043/044 Conveyor Transfer	143	1	Null	Null	4,000	80	Estimate	Upwards with no cap on stack/vent	
STRU 81	SV176	Step III 043/044 Conveyor Transfer	143	1	Null	Null	4,000	80	Estimate	Upwards with no cap on stack/vent	
STRU 82	SV178	Step III 044-6/044-7 Conveyor Transfer	143	1	Null	Null	4,000	80	Estimate	Upwards with no cap on stack/vent	
STRU 83	SV180	Step III Pellet Loadout	105	1	Null	Null	470	80	Estimate	Upwards with no cap on stack/vent	
STRU 84	SV182	Coal Day Bin/Conveyor Transfer	163.5	2.83	Null	Null	29,000	70	Estimate	Upwards with no cap on stack/vent	
STRU 85	SV184	Diesel Generator	25	Null	2	0.83	2,800	700	Estimate	Horizontally	
STRU 86	SV187	Diesel Air Compressor	40	Null	2	1	12,000	80	Estimate	Horizontally	
STRU 88	SV192	Paint Shop Booth	39	0.5	Null	Null	2,580	70	Estimate	Upwards with no cap on stack/vent	
STRU 92	SV030	Conveyor Transfer 008-009	77.5	Null	30	2.83	13,750	50	Estimate	Horizontally	
STRU 94	SV032	Secondary Crusher L2	77.5	Null	30	2.83	22,500	50	Estimate	Horizontally	
STRU 95	SV033	Secondary Crusher L3	77.5	Null	30	2.83	22,500	50	Estimate	Horizontally	
STRU 96	SV034	Secondary Crusher L4	77.5	Null	30	2.83	22,500	50	Estimate	Horizontally	
STRU 97	SV035	Conveyor Transfer 005-006	76	Null	30	2.83	22,500	50	Estimate	Horizontally	
STRU 98	SV036	Conveyor Transfer 003-004	78	Null	30	2.83	13,750	50	Estimate	Horizontally	
STRU 100	SV038	Tertiary Crusher L1	77.5	Null	30	2.83	18,750	50	Estimate	Horizontally	
STRU 101	SV039	Tertiary Crusher L2	77.5	Null	30	2.83	18,750	50	Estimate	Horizontally	
STRU 102	SV040	Tertiary Crusher L3	77.5	Null	30	2.83	18,750	50	Estimate	Horizontally	
STRU 103	SV042	Tertiary Crusher L5	77.5	Null	30	2.83	18,750	50	Estimate	Horizontally	
STRU 104	SV043	Tertiary Crusher L6	132	Null	30	2.83	18,750	50	Estimate	Horizontally	
STRU 105	SV044	Tertiary Crusher L7	132	2.83	Null	Null	18,750	50	Estimate	Upwards with no cap on stack/vent	

Stack/Vents

AI ID (Name): 2476 (US Steel Corp - MinnTac)
Activity: IND20070001

Subject Item ID	Delta Designation	Description	Stack Height (feet)	Stack Diameter (feet)	Stack Length (feet)	Stack Width (feet)	Stack Flow Rate (cubic ft/min)	Discharge Temperature (°F)	Flow Rate/Temp Information Source	Discharge Direction	
STRU 106	SV045	Tertiary Crusher L8	132	2.83	Null	Null	18,750	50	Estimate	Upwards with no cap on stack/vent	
STRU 107	SV046	Tertiary Crusher L9	132	2.83	Null	Null	18,750	50	Estimate	Upwards with no cap on stack/vent	
STRU 108	SV047	Tertiary Crusher L10	132	2.83	Null	Null	18,750	50	Estimate	Upwards with no cap on stack/vent	
STRU 109	SV048	Tertiary Crusher L11	132	2.83	Null	Null	18,750	50	Estimate	Upwards with no cap on stack/vent	
STRU 110	SV049	Tertiary Crusher L12	132	2.83	Null	Null	18,750	50	Estimate	Upwards with no cap on stack/vent	
STRU 111	SV050	Tertiary Crusher L13	132	Null	30	2.83	18,750	50	Estimate	Horizontally	
STRU 112	SV051	Tertiary Crusher L14	132	2.83	Null	Null	18,750	50	Estimate	Upwards with no cap on stack/vent	
STRU 113	SV193	Step III Bentonite Storage Baghouse	20	4	Null	Null	65,000	70	Manufacturer	Upwards with no cap on stack/vent	
STRU 114	SV089	Storage Bin L3, 4	97.38	3.33	Null	Null	26,250	50	Estimate	Upwards with no cap on stack/vent	
STRU 115	SV091	Storage Bin L7, 8	119.03	3.5	Null	Null	22,700	50	Estimate	Upwards with no cap on stack/vent	
STRU 116	SV092	Storage Bin L9, 10	118.2	3.08	Null	Null	26,700	50	Estimate	Upwards with no cap on stack/vent	
STRU 117	SV094	Conveyor Transfer 009-020	117.67	2.75	Null	Null	26,500	50	Estimate	Upwards with no cap on stack/vent	
STRU 118	SV096	Storage Bin L15, 16	119.03	3.5	Null	Null	42,500	50	Estimate	Upwards with no cap on stack/vent	
STRU 119	SV098	Diesel Generator	119	Null	3	0.67	2,200	700	Estimate	Horizontally	
STRU 120	SV101	L3 Grate Feed	103.1	2.5	Null	Null	15,000	80	Estimate	Upwards with no cap on stack/vent	
STRU 121	SV104	L3 Cooler Vent Stack	122.9	10.25	Null	Null	130,000	920	Estimate	Upwards with no cap on stack/vent	
STRU 122	SV106	L3 Feeder 041, 046 Belts	99.21	2.25	Null	Null	15,000	110	Estimate	Upwards with no cap on stack/vent	
STRU 123	SV108	S1 Conveyor Transfer 042-043	103	1	Null	Null	15,000	65	Estimate	Upwards with no cap on stack/vent	
STRU 125	SV112	S1, 2 Bentonite Unloading	104	2	Null	Null	12,000	65	Estimate	Upwards with no cap on stack/vent	
STRU 127	SV116	L4 Grate Feed	95.7	2.25	Null	Null	14,000	80	Estimate	Upwards with no cap on stack/vent	
STRU 128	SV117	L4 Grate Discharge	114.39	3.16	Null	Null	14,000	110	Estimate	Upwards with no cap on stack/vent	
STRU 129	SV119	L4 Cooler Vent Stack	117.5	11.28	Null	Null	182,000	580	Estimate	Upwards with no cap on stack/vent	
STRU 130	SV121	L4 Cooler Dump Zone	104.39	3.16	Null	Null	21,500	110	Estimate	Upwards with no cap on stack/vent	
STRU 133	SV128	L5 Cooler Vent Stack	117.5	11.28	Null	Null	182,000	580	Estimate	Upwards with no cap on stack/vent	
STRU 134	SV130	L5 Cooler Dump Zone	104.39	3.16	Null	Null	21,500	110	Estimate	Upwards with no cap on stack/vent	
STRU 139	SV139	S3 Bentonite Storage	132	1.5	Null	Null	4,100	65	Estimate	Upwards with no cap on stack/vent	
STRU 141	SV142	L6 Grate Feed	145	2.5	Null	Null	15,000	105	Estimate	Upwards with no cap on stack/vent	
STRU 142	SV001	SI 104 MMBtu Boiler	67.25	4.5	Null	Null	17,000	380	Estimate	Upwards with no cap on stack/vent	
STRU 143	SV002	SI 104 MMBtu Boiler	67.25	4.5	Null	Null	17,000	380	Estimate	Upwards with no cap on stack/vent	
STRU 144	SV003	SII 125 MMBtu Boiler	67.25	4.5	Null	Null	20,800	380	Estimate	Upwards with no cap on stack/vent	
STRU 145	SV004	SIII 153 MMBtu Boiler	68.59	4.5	Null	Null	25,500	380	Estimate	Upwards with no cap on stack/vent	
STRU 146	SV005	SIII 153 MMBtu Boiler	68.59	4.5	Null	Null	25,500	380	Estimate	Upwards with no cap on stack/vent	
STRU 147	SV006	Diesel Generator	20	0.66	Null	Null	4,950	700	Estimate	Upwards with no cap on stack/vent	
STRU 148	SV009	Diesel Fire Pump	20	4	Null	Null	10,000	700	Estimate	Upwards with no cap on stack/vent	
STRU 149	SV010	24.6 MMBtu Boiler	58.84	2.5	Null	Null	4,100	380	Estimate	Upwards with no cap on stack/vent	
STRU 150	SV011	24.6 MMBtu Boiler	58.84	2.5	Null	Null	4,100	380	Estimate	Upwards with no cap on stack/vent	

Stack/Vents

AI ID (Name): 2476 (US Steel Corp - MinnTac)
Activity: IND20070001

Subject Item ID	Delta Designation	Description	Stack Height (feet)	Stack Diameter (feet)	Stack Length (feet)	Stack Width (feet)	Stack Flow Rate (cubic ft/min)	Discharge Temperature (°F)	Flow Rate/Temp Information Source	Discharge Direction	
STRU 151	SV012	Diesel Generator	16	Null	3	0.83	2,550	700	Estimate	Horizontally	
STRU 152	SV013	Step I Coarse Crusher	6	5	Null	Null	65,000	60	Estimate	Horizontally	
STRU 153	SV014	Step II Coarse Crusher	6	5	Null	Null	65,000	60	Estimate	Horizontally	
STRU 154	SV015	Step III Coarse Crusher	56.74	6	Null	Null	77,000	60	Estimate	Upwards with no cap on stack/vent	
STRU 155	SV144	L6 Waste Gas Stack	140	16	Null	Null	555,650	109	Estimate	Upwards with no cap on stack/vent	
STRU 157	SV149	L7 Grate Feed	145	2.5	Null	Null	15,000	105	Estimate	Upwards with no cap on stack/vent	
STRU 158	SV154	Step I 043/044 Conv. Trans	103	1	Null	Null	470	80	Estimate	Upwards with no cap on stack/vent	
STRU 159	SV156	Step III 042 Conveyor Vent	148	1	Null	Null	470	80	Estimate	Upwards with no cap on stack/vent	
STRU 160	SV158	Step III 043 Conveyor Vent	57	1	Null	Null	12,000	80	Estimate	Upwards with no cap on stack/vent	
STRU 161	SV159	Step III 043 Conveyor Vent	105	1	Null	Null	12,000	80	Estimate	Upwards with no cap on stack/vent	
STRU 162	SV161	Step III 044 Conveyor Vent	133	1	Null	Null	4,000	80	Estimate	Upwards with no cap on stack/vent	
STRU 163	SV163	Step III 044 Conveyor Vent	133	1	Null	Null	4,000	80	Estimate	Upwards with no cap on stack/vent	
STRU 164	SV165	Step III 044 Conveyor Vent	133	1	Null	Null	4,000	80	Estimate	Upwards with no cap on stack/vent	
STRU 165	SV167	Step III 044 Conveyor Vent	133	1	Null	Null	4,000	80	Estimate	Upwards with no cap on stack/vent	
STRU 166	SV169	Step III 044 Conveyor Vent	133	1	Null	Null	4,000	80	Estimate	Upwards with no cap on stack/vent	
STRU 167	SV171	Step III 044 Conveyor Vent	133	1	Null	Null	4,000	80	Estimate	Upwards with no cap on stack/vent	
STRU 168	SV173	Step III 044 Conveyor Vent	133	1	Null	Null	4,000	80	Estimate	Upwards with no cap on stack/vent	
STRU 169	SV177	Step III 043/044 Conveyor Transfer	133	1	Null	Null	4,000	80	Estimate	Upwards with no cap on stack/vent	
STRU 170	SV179	Step III 044-6/044-7 Conveyor Transfer	143	1	Null	Null	4,000	80	Estimate	Upwards with no cap on stack/vent	
STRU 171	SV181	Coal Unloading Silo	129.25	3.33	Null	Null	29,000	70	Estimate	Upwards with no cap on stack/vent	
STRU 172	SV183	Diesel Generator	38	Null	2	0.67	2,600	700	Estimate	Horizontally	
STRU 173	SV185	Diesel Generator	36	Null	2	0.66	2,350	700	Estimate	Horizontally	
STRU 174	SV186	Diesel Generator	36	Null	2	0.66	2,350	700	Estimate	Horizontally	
STRU 175	SV189	Electric Shop Curing Oven	58	1.17	Null	Null	2,000	300	Estimate	Upwards with no cap on stack/vent	
STRU 176	SV190	Burnout Oven	46	1.67	Null	Null	1,000	800	Estimate	Upwards with no cap on stack/vent	
STRU 177	SV191	Carpenters Shop	6	2	Null	Null	2,850	70	Estimate	Upwards with no cap on stack/vent	
STRU 178	SV058	Secondary Crusher L9	132	2.83	Null	Null	21,300	50	Estimate	Upwards with no cap on stack/vent	
STRU 179	SV028	Conveyor Transfer 005 Discharge	56.75	2.5	Null	Null	15,000	50	Estimate	Upwards with no cap on stack/vent	
STRU 180	SV060	Conveyor Transfer 008-009	132	2.83	Null	Null	20,000	50	Estimate	Upwards with no cap on stack/vent	
STRU 181	SV063	Conveyor Transfer 008-009	88	2.5	Null	Null	16,250	50	Estimate	Upwards with no cap on stack/vent	
STRU 182	SV065	Secondary Crusher L12	128.5	3	Null	Null	26,250	50	Estimate	Upwards with no cap on stack/vent	
STRU 183	SV067	Secondary Crusher L14	128.5	3	Null	Null	26,250	50	Estimate	Upwards with no cap on stack/vent	
STRU 184	SV069	Conveyor Transfer 001-070 Bin	127	2	Null	Null	11,250	50	Estimate	Upwards with no cap on stack/vent	
STRU 185	SV072	Tertiary Storage 006-080 Bins	149.75	3.8	Null	Null	42,000	50	Estimate	Upwards with no cap on stack/vent	
STRU 186	SV074	Tertiary Crusher L19	145	3	Null	Null	26,250	50	Estimate	Upwards with no cap on stack/vent	
STRU 187	SV076	Tertiary Crusher L21	145	3	Null	Null	26,250	50	Estimate	Upwards with no cap on stack/vent	

Stack/Vents

AI ID (Name): 2476 (US Steel Corp - MinnTac)
Activity: IND20070001

Subject Item ID	Delta Designation	Description	Stack Height (feet)	Stack Diameter (feet)	Stack Length (feet)	Stack Width (feet)	Stack Flow Rate (cubic ft/min)	Discharge Temperature (°F)	Flow Rate/Temp Information Source	Discharge Direction	
STRU 188	SV079	Tertiary Crusher L24	145	3	Null	Null	26,250	50	Estimate	Upwards with no cap on stack/vent	
STRU 189	SV081	Tertiary Crusher L26	145	3	Null	Null	26,250	50	Estimate	Upwards with no cap on stack/vent	
STRU 190	SV083	Tertiary Crusher L28	145	3	Null	Null	26,250	50	Estimate	Upwards with no cap on stack/vent	
STRU 191	SV085	Conveyor Transfer 005-006	148.75	2.34	Null	Null	16,000	50	Estimate	Upwards with no cap on stack/vent	
STRU 192	SV088	Storage Bin L1, 2	97.38	Null	8	3.33	26,250	50	Estimate	Horizontally	
STRU 193	SV090	Storage Bin L5, 6	97.38	Null	8	3.33	31,250	50	Estimate	Horizontally	
STRU 194	SV008	Diesel Generator	20	0.5	Null	Null	3,200	700	Estimate	Upwards with no cap on stack/vent	
STRU 195	SV017	Step II Coarse Crusher Pan Feeders	38	3.4	Null	Null	30,000	60	Estimate	Upwards with no cap on stack/vent	
STRU 196	SV022	Conveyor Transfer 010-01	105.2	1.9	Null	Null	11,000	50	Estimate	Upwards with no cap on stack/vent	
STRU 197	SV093	Storage Bin L11, 12	119.03	3.5	Null	Null	31,700	50	Estimate	Upwards with no cap on stack/vent	
STRU 198	SV095	Storage Bin L13, 14	119.03	3.5	Null	Null	42,500	50	Estimate	Upwards with no cap on stack/vent	
STRU 199	SV097	Storage Bin L17, 18	119.03	3.8	Null	Null	42,500	50	Estimate	Upwards with no cap on stack/vent	
STRU 201	SV102	L3 Grate Discharge	109	2.5	Null	Null	15,000	110	Estimate	Upwards with no cap on stack/vent	
STRU 202	SV105	L3 Cooler Dump Zone	108.48	4	Null	Null	24,000	110	Estimate	Upwards with no cap on stack/vent	
STRU 203	SV107	L3 041/046 Conveyor Belt Vent	45	1.67	Null	Null	12,000	50	Estimate	Horizontally	
STRU 204	SV109	L1 Conveyor Transfer 041-042	127	2.5	Null	Null	15,000	110	Estimate	Upwards with no cap on stack/vent	
STRU 208	SV118	L4 Waste Gas Stack	139.6	14	Null	Null	650,000	115	Estimate	Upwards with no cap on stack/vent	
STRU 209	SV120	L4 Conveyor Transfer Feeder	100	3.16	Null	Null	28,350	110	Estimate	Upwards with no cap on stack/vent	
STRU 210	SV016	Step I Coarse Crusher Pan Feeders	38	3.4	Null	Null	30,000	60	Estimate	Upwards with no cap on stack/vent	
STRU 211	SV018	Step III Coarse Crusher Pan Feeders	46	4	Null	Null	16,250	60	Estimate	Upwards with no cap on stack/vent	
STRU 212	SV019	Zinc Melt Furnace	32	1.67	Null	Null	36,700	700	Estimate	Upwards with no cap on stack/vent	
STRU 213	SV020	Zinc Melt Furnace	32	1.67	Null	Null	36,700	700	Estimate	Upwards with no cap on stack/vent	
STRU 214	SV021	Conveyor Transfer 005-006	109.42	2.95	Null	Null	22,500	50	Estimate	Upwards with no cap on stack/vent	
STRU 215	SV023	Conveyor Transfer 005-006	30	Null	30	2.5	16,000	50	Estimate	Horizontally	
STRU 216	SV024	Conveyor Transfer 004-005	123.08	3.83	Null	Null	42,500	50	Estimate	Upwards with no cap on stack/vent	
STRU 217	SV025	Conveyor Transfer 011-02/03	107.58	2	Null	Null	15,000	50	Estimate	Upwards with no cap on stack/vent	
STRU 218	SV026	Surge Pile/Reclaim 011-01	65	2.5	Null	Null	20,000	50	Estimate	Upwards with no cap on stack/vent	
STRU 219	SV027	Conveyor Transfer 005 Feed	46.92	2.5	Null	Null	15,000	50	Estimate	Upwards with no cap on stack/vent	
STRU 220	SV029	Diesel Generator	14	Null	3	0.67	2,200	700	Estimate	Horizontally	
STRU 221	SV125	L5 Grate Feed	95.7	2.25	Null	Null	14,000	80	Estimate	Upwards with no cap on stack/vent	
STRU 222	SV041	Tertiary Crusher L4	77.5	Null	30	2.83	18,750	50	Estimate	Horizontally	
STRU 223	SV055	Secondary Crusher L6	132	2.83	Null	Null	21,400	50	Estimate	Upwards with no cap on stack/vent	
STRU 224	SV078	Tertiary Crusher L23	145	3	Null	Null	26,250	50	Estimate	Upwards with no cap on stack/vent	
STRU 225	SV103	L3 Waste Gas Stack	116	10	Null	Null	322,000	235	Estimate	Upwards with no cap on stack/vent	
STRU 226	SV126	L5 Grate Discharge	114.39	3.16	Null	Null	14,000	110	Estimate	Upwards with no cap on stack/vent	
STRU 227	SV150	L7 Grate Discharge	125.25	2.5	Null	Null	15,000	110	Estimate	Upwards with no cap on stack/vent	

Stack/Vents

AI ID (Name): 2476 (US Steel Corp - MinnTac)
Activity: IND20070001

Subject Item ID	Delta Designation	Description	Stack Height (feet)	Stack Diameter (feet)	Stack Length (feet)	Stack Width (feet)	Stack Flow Rate (cubic ft/min)	Discharge Temperature (°F)	Flow Rate/Temp Information Source	Discharge Direction	
STRU 228	SV175	Step III 043/044 Conveyor Transfer	143	1	Null	Null	4,000	80	Estimate	Upwards with no cap on stack/vent	
STRU 229	SV099	Diesel Generator	25	0.67	Null	Null	2,600	700	Estimate	Upwards with a cap on stack/vent	
STRU 230	SV122	L4 Conveyor Transfer 041-046 to 042 Belts	107.09	1.58	Null	Null	8,000	110	Estimate	Upwards with no cap on stack/vent	
STRU 231	SV052	Tertiary Crusher L15	132	2.83	Null	Null	18,750	50	Estimate	Upwards with no cap on stack/vent	
STRU 232	SV053	Tertiary Crusher L16	132	2.83	Null	Null	18,750	50	Estimate	Upwards with no cap on stack/vent	
STRU 234	SV056	Secondary Crusher L7	132	2.83	Null	Null	20,900	50	Estimate	Upwards with no cap on stack/vent	
STRU 235	SV057	Secondary Crusher L8	132	2.83	Null	Null	20,900	50	Estimate	Upwards with no cap on stack/vent	
STRU 236	SV059	Secondary Crusher L10	132	2.83	Null	Null	20,900	50	Estimate	Upwards with no cap on stack/vent	
STRU 237	SV061	Storage Bin 070-02	132	1.92	Null	Null	11,000	50	Estimate	Upwards with no cap on stack/vent	
STRU 238	SV062	Secondary Crusher L5	132	2.83	Null	Null	23,000	50	Estimate	Upwards with no cap on stack/vent	
STRU 239	SV064	Secondary Crusher L11	128.5	3	Null	Null	26,250	50	Estimate	Upwards with no cap on stack/vent	
STRU 240	SV066	Secondary Crusher L13	128.5	3	Null	Null	26,250	50	Estimate	Upwards with no cap on stack/vent	
STRU 241	SV068	Secondary Crusher L15	128.5	3	Null	Null	26,000	50	Estimate	Upwards with no cap on stack/vent	
STRU 242	SV070	Conveyor Transfer 003	129.25	2.5	Null	Null	16,250	50	Estimate	Upwards with no cap on stack/vent	
STRU 243	SV071	Conveyor Transfer 003-004	20	2.33	Null	Null	16,250	50	Estimate	Upwards with no cap on stack/vent	
STRU 244	SV073	Tertiary Crusher L18	145	3	Null	Null	26,250	50	Estimate	Upwards with no cap on stack/vent	
STRU 245	SV075	Tertiary Crusher L20	145	3	Null	Null	26,250	50	Estimate	Upwards with no cap on stack/vent	
STRU 246	SV077	Tertiary Crusher L22	145	3	Null	Null	26,250	50	Estimate	Upwards with no cap on stack/vent	
STRU 247	SV080	Tertiary Crusher L25	145	3	Null	Null	26,250	50	Estimate	Upwards with no cap on stack/vent	
STRU 248	SV082	Tertiary Crusher L27	145	3	Null	Null	26,250	50	Estimate	Upwards with no cap on stack/vent	
STRU 249	SV084	Tertiary Crusher L29	145	3	Null	Null	26,250	50	Estimate	Upwards with no cap on stack/vent	
STRU 250	SV086	Zinc Melt Furnace	29	1.67	Null	Null	36,700	700	Estimate	Upwards with no cap on stack/vent	
STRU 251	SV087	Conveyor Transfer 009-020	91.42	Null	18	2	13,750	50	Estimate	Horizontally	
STRU 252	SV198	Heaters (25 units, Ltr 8/10/01)	Null	Null	Null	Null	Null	Null	Null	Null	
STRU 253	SV194	Limestone Receiving System	20	4	Null	Null	65,000	70	Manufacturer	Upwards with a cap on stack/vent	
STRU 254	SV196	L6 Pellet Cooler Stack	156	11.28	Null	Null	182,000	580	Test data	Upwards with a cap on stack/vent	
STRU 255	SV197	L7 Pellet Cooler Stack	156	11.28	Null	Null	182,000	580	Test data	Upwards with a cap on stack/vent	
STRU 256	SV131	L5 Conveyor Transfer 041-046 to 042 Belts	87.33	1.92	Null	Null	8,000	110	Estimate	Upwards with no cap on stack/vent	
STRU 259	SV195	Hill Wood Products system	10	2	Null	Null	12,000	70	Manufacturer	Horizontally	
STRU 262	SV201	Guard Shack Emergency Generator	7.3	2	Null	Null	497	80	Estimate	Upwards with no cap on stack/vent	
STRU 264	Null	Step 1 043 Conveyor Vents	10	4	Null	Null	26,000	70	Estimate	Upwards with no cap on stack/vent	
STRU 265	Null	Step 1 043 Conveyor Vents	43.75	4	Null	Null	26,000	70	Estimate	Upwards with no cap on stack/vent	
STRU 266	Null	Step 1 043 Conveyor Vents	84.75	4	Null	Null	26,000	70	Estimate	Upwards with no cap on stack/vent	
STRU 267	Null	Step 1 043 Conveyor Vents	86.75	4	Null	Null	26,000	70	Estimate	Upwards with no cap on stack/vent	
STRU 268	Null	Step 1 043 Conveyor Vents	73.5	4	Null	Null	26,000	70	Estimate	Upwards with no cap on stack/vent	
STRU 269	Null	Step 1 043 Conveyor Vents	73.5	4	Null	Null	15,000	70	Estimate	Upwards with no cap on stack/vent	

Stack/Vents

AI ID (Name): 2476 (US Steel Corp - MinnTac)
Activity: IND20070001

Subject Item ID	Delta Designation	Description	Stack Height (feet)	Stack Diameter (feet)	Stack Length (feet)	Stack Width (feet)	Stack Flow Rate (cubic ft/min)	Discharge Temperature (°F)	Flow Rate/Temp Information Source	Discharge Direction	
STRU 270	Null	Fire Hall Emergency Generator	6.3	0.4	Null	Null	1,353	991	Estimate	Upwards with no cap on stack/vent	
STRU 271	Null	Line 6 Steam Collection Exhaust Stack	1,212.3	3	Null	Null	30,000	92	Estimate	Upwards with no cap on stack/vent	

Scrubbers

AI ID (Name): 2476 (US Steel Corp - MinnTac)
Activity: IND20070001

Subject Item Type	Subject Item ID	Delta Designation	Description	Manufacturer (Model #)	Installation Start Date	Pollutants Controlled	Capture Efficiency (%)	Destruction/Collect Efficiency (%)	Subject to CAM?	Large or Other PSEU?	Efficiency Basis	Other Basis Explanation	Min Pressure Drop (in. of water column)	Max Pressure Drop (in. of water column)	Min Liquid Flow Rate (gal/min)	
001-Wet Scrubber - High Efficiency	TREA 37	CE103	Agglomerator II Line 4 Waste Gas Scrubber	Advanced AirTech (MTS-600K)	2/1/1992	Particulate Matter	100	90	No	Null	Other	Engineering estimate	7.4	12	999.9	
						PM < 2.5 micron	100	90	No	Null	Other	Engineering estimate	7.4	12	999.9	
						PM < 10 micron	100	90	No	Null	Other	Engineering estimate	7.4	12	999.9	
						Sulfur Dioxide	100	90	Yes	Other	Other	Engineering Estimate	7.4	12	999.9	
	TREA 38	CE113	Line 5 Waste Gas Scrubber	Advanced AirTech (MTS-600K)	2/1/1992	Particulate Matter	100	90	No	Null	Other	Engineering estimate	7.5	12	999.9	
						PM < 2.5 micron	100	90	No	Null	Other	Engineering estimate	7.5	12	999.9	
						PM < 10 micron	100	90	No	Null	Other	Engineering estimate	7.5	12	999.9	
						Sulfur Dioxide	100	90	Yes	Large	Other	Engineering Estimate	7.5	12	999.9	
	TREA 48	CE041	Step I Secondary Crusher Line 6 Scrubber	National Dust (450 Hydrofilter)	5/25/1905	Particulate Matter	100	95	No	Null	Other	Engineering estimate	4.2	12	21.3	
						PM < 2.5 micron	100	90	No	Null	Other	Engineering estimate	4.2	12	21.3	
						PM < 10 micron	100	94.3	No	Null	Other	Engineering estimate	4.2	12	21.3	
	TREA 49	CE042	Step I Secondary Crusher Line 7 Scrubber	National Dust (450 Hydrofilter)	5/25/1905	Particulate Matter	100	95	No	Null	Other	Engineering estimate	4.2	12	21.3	
						PM < 2.5 micron	100	90	No	Null	Other	Engineering estimate	4.2	12	21.3	
						PM < 10 micron	100	94.3	No	Null	Other	Engineering estimate	4.2	12	21.3	
	TREA 50	CE043	Step I Secondary Crusher Line 8 Scrubber	National Dust (450 Hydrofilter)	5/25/1905	Particulate Matter	100	95	No	Null	Other	Engineering estimate	4.2	12	21.3	
						PM < 2.5 micron	100	90	No	Null	Other	Engineering estimate	4.2	12	21.3	
						PM < 10 micron	100	94.3	No	Null	Other	Engineering estimate	4.2	12	21.3	
	TREA 51	CE044	Step I Secondary Crusher Line 9 Scrubber	National Dust (450 Hydrofilter)	5/25/1905	Particulate Matter	100	95	No	Null	Other	Engineering estimate	4.2	12	21.3	
						PM < 2.5 micron	100	90	No	Null	Other	Engineering estimate	4.2	12	21.3	
						PM < 10 micron	100	94.3	No	Null	Other	Engineering estimate	4.2	12	21.3	
	TREA 52	CE045	Step I Secondary Crusher Line 10 Scrubber	National Dust (450 Hydrofilter)	5/25/1905	Particulate Matter	100	95	No	Null	Other	Engineering estimate	4.2	12	21.3	
						PM < 2.5 micron	100	90	No	Null	Other	Engineering estimate	4.2	12	21.3	
						PM < 10 micron	100	94.3	No	Null	Other	Engineering estimate	4.2	12	21.3	

Scrubbers

AI ID (Name): 2476 (US Steel Corp - MinnTac)
Activity: IND20070001

Subject Item Type	Subject Item ID	Delta Designation	Description	Manufacturer (Model #)	Installation Start Date	Pollutants Controlled	Capture Efficiency (%)	Destruction/Collect Efficiency (%)	Subject to CAM?	Large or Other PSEU?	Efficiency Basis	Other Basis Explanation	Min Pressure Drop (in. of water column)	Max Pressure Drop (in. of water column)	Min Liquid Flow Rate (gal/min)	
001-Wet Scrubber - High Efficiency	TREA 53	CE046	Step I Conveyor Transfer 008 to 009 Scrubber	National Dust (450 Hydrofilter)	5/25/1905	Particulate Matter	100	95	No	Null	Other	Engineering estimate	3.9	12	13.9	
						PM < 2.5 micron	100	90	No	Null	Other	Engineering estimate	3.9	12	13.9	
						PM < 10 micron	100	94.3	No	Null	Other	Engineering estimate	3.9	12	13.9	
	TREA 54	CE047	Secondary Storage Bin 070-02 Scrubber	National dust (225 Hydrofilter)	5/25/1905	Particulate Matter	100	95	No	Null	Other	Engineering estimate	3	10	14.5	
						PM < 2.5 micron	100	90	No	Null	Other	Engineering estimate	3	10	14.5	
						PM < 10 micron	100	94.3	No	Null	Other	Engineering estimate	3	10	14.5	
	TREA 57	CE050	Step III Secondary Crusher Line 11 Scrubber	National Dust (525 Hydrofilter)	3/1/1977	Particulate Matter	100	95	No	Null	Other	Engineering estimate	4.4	10	24.5	
						PM < 2.5 micron	100	90	No	Null	Other	Engineering estimate	4.4	10	24.5	
						PM < 10 micron	100	94.3	No	Null	Other	Engineering estimate	4.4	10	24.5	
	TREA 58	CE051	Step III Secondary Crusher Line 12 Scrubber	National Dust (525 Hydrofilter)	3/1/1977	Particulate Matter	100	95	No	Null	Other	Engineering estimate	4.4	10	19.4	
						PM < 2.5 micron	100	90	No	Null	Other	Engineering estimate	4.4	10	19.4	
						PM < 10 micron	100	94.3	No	Null	Other	Engineering estimate	4.4	10	19.4	
	TREA 59	CE052	Step III Secondary Crusher Line 13 Scrubber	National Dust (525 Hydrofilter)	3/1/1977	Particulate Matter	100	95	No	Null	Other	Engineering estimate	4.4	10	24.5	
						PM < 2.5 micron	100	90	No	Null	Other	Engineering estimate	4.4	10	24.5	
						PM < 10 micron	100	94.3	No	Null	Other	Engineering estimate	4.4	10	24.5	
	TREA 62	CE055	Conveyor Transfer 001-070 Bin Scrubber	National Dust (225 Hydrofilter)	3/1/1977	Particulate Matter	100	95	No	Null	Other	Engineering estimate	3.9	10	13.9	
						PM < 2.5 micron	100	90	No	Null	Other	Engineering estimate	3.9	10	13.9	
						PM < 10 micron	100	94.3	No	Null	Other	Engineering estimate	3.9	10	13.9	
	TREA 63	CE056	Conveyor Transfer 003 Scrubber	National Dust (325 Hydrofilter)	3/1/1977	Particulate Matter	100	95	No	Null	Other	Engineering estimate	3.9	12	13.9	
						PM < 2.5 micron	100	90	No	Null	Other	Engineering estimate	3.9	12	13.9	
						PM < 10 micron	100	94.3	No	Null	Other	Engineering estimate	3.9	12	13.9	
	TREA 64	CE057	Conveyor Transfer 003 to 004 Scrubber	National Dust (325 Hydrofilter)	3/1/1977	Particulate Matter	100	95	No	Null	Other	Engineering estimate	3.3	10	14	
						PM < 2.5 micron	100	90	No	Null	Other	Engineering estimate	3.3	10	14	

Scrubbers

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Subject Item Type	Subject Item ID	Delta Designation	Description	Manufacturer (Model #)	Installation Start Date	Pollutants Controlled	Capture Efficiency (%)	Destruction/Collect Efficiency (%)	Subject to CAM?	Large or Other PSEU?	Efficiency Basis	Other Basis Explanation	Min Pressure Drop (in. of water column)	Max Pressure Drop (in. of water column)	Min Liquid Flow Rate (gal/min)	
001-Wet Scrubber - High Efficiency	TREA 64	CE057	Conveyor Transfer 003 to 004 Scrubber	National Dust (325 Hydrofilter)	3/1/1977	PM < 10 micron	100	94.3	No	Null	Other	Engineering estimate	3.3	10	14	
	TREA 65	CE058	Step III Tertiary Storage 006-080 Bins Scrubber	National Dust (850 Hydrofilter)	3/1/1977	Particulate Matter	100	95	No	Null	Other	Engineering estimate	3.9	10	14.3	
						PM < 2.5 micron	100	90	No	Null	Other	Engineering estimate	3.9	10	14.3	
						PM < 10 micron	100	94.3	No	Null	Other	Engineering estimate	3.9	10	14.3	
	TREA 66	CE059	Step III Tertiary Crusher Line 18 Scrubber	National Dust (525 Hydrofilter)	3/1/1977	Particulate Matter	100	95	No	Null	Other	Engineering estimate	4	10	21.8	
						PM < 2.5 micron	100	90	No	Null	Other	Engineering estimate	4	10	21.8	
						PM < 10 micron	100	94.3	No	Null	Other	Engineering estimate	4	10	21.8	
	TREA 67	CE060	Step III Tertiary Crusher Line 19 Scrubber	National Dust (525 Hydrofilter)	3/1/1977	Particulate Matter	100	95	No	Null	Other	Engineering estimate	4	10	21.8	
						PM < 2.5 micron	100	90	No	Null	Other	Engineering estimate	4	10	21.8	
						PM < 10 micron	100	94.3	No	Null	Other	Engineering estimate	4	10	21.8	
	TREA 68	CE061	Step III Tertiary Crusher Line 20 Scrubber	National Dust (525 Hydrofilter)	3/1/1977	Particulate Matter	100	95	No	Null	Other	Engineering estimate	4	10	21.8	
						PM < 2.5 micron	100	90	No	Null	Other	Engineering estimate	4	10	21.8	
						PM < 10 micron	100	94.3	No	Null	Other	Engineering estimate	4	10	21.8	
	TREA 69	CE062	Step III Tertiary Crusher Line 21 Scrubber	National Dust (525 Hydrofilter)	3/1/1977	Particulate Matter	100	95	No	Null	Other	Engineering estimate	4	10	21.8	
						PM < 2.5 micron	100	90	No	Null	Other	Engineering estimate	4	10	21.8	
						PM < 10 micron	100	94.3	No	Null	Other	Engineering estimate	4	10	21.8	
	TREA 70	CE063	Step III Tertiary Crusher Line 22 Scrubber	National Dust (525 Hydrofilter)	3/1/1977	Particulate Matter	100	95	No	Null	Other	Engineering estimate	4	10	21.8	
						PM < 2.5 micron	100	90	No	Null	Other	Engineering estimate	4	10	21.8	
						PM < 10 micron	100	94.3	No	Null	Other	Engineering estimate	4	10	21.8	
	TREA 71	CE064	Step III Tertiary Crusher Line 23 Scrubber	National Dust (525 Hydrofilter)	3/1/1977	Particulate Matter	100	95	No	Null	Other	Engineering estimate	4	10	21.8	
						PM < 2.5 micron	100	90	No	Null	Other	Engineering estimate	4	10	21.8	
						PM < 10 micron	100	94.3	No	Null	Other	Engineering estimate	4	10	21.8	
	TREA 72	CE065	Step III Tertiary Crusher Line 24 Scrubber	National Dust (525 Hydrofilter)	3/1/1977	Particulate Matter	100	95	No	Null	Other	Engineering estimate	3.9	10	22	

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Subject Item Type	Subject Item ID	Delta Designation	Description	Manufacturer (Model #)	Installation Start Date	Pollutants Controlled	Capture Efficiency (%)	Destruction/Collect Efficiency (%)	Subject to CAM?	Large or Other PSEU?	Efficiency Basis	Other Basis Explanation	Min Pressure Drop (in. of water column)	Max Pressure Drop (in. of water column)	Min Liquid Flow Rate (gal/min)
001-Wet Scrubber - High Efficiency	TREA 72	CE065	Step III Tertiary Crusher Line 24 Scrubber	National Dust (525 Hydrofilter)	3/1/1977	PM < 2.5 micron	100	90	No	Null	Other	Engineering estimate	3.9	10	22
						PM < 10 micron	100	94.3	No	Null	Other	Engineering estimate	3.9	10	22
	TREA 73	CE066	Step III Tertiary Crusher Line 25 Scrubber	National Dust (525 Hydrofilter)	3/1/1977	Particulate Matter	100	95	No	Null	Other	Engineering estimate	3.9	10	22
						PM < 2.5 micron	100	90	No	Null	Other	Engineering estimate	3.9	10	22
						PM < 10 micron	100	94.3	No	Null	Other	Engineering estimate	3.9	10	22
	TREA 74	CE067	Step III Tertiary Crusher Line 26 Scrubber	National Dust (525 Hydrofilter)	3/1/1977	Particulate Matter	100	95	No	Null	Other	Engineering estimate	3.9	10	22
						PM < 2.5 micron	100	90	No	Null	Other	Engineering estimate	3.9	10	22
						PM < 10 micron	100	94.3	No	Null	Other	Engineering estimate	3.9	10	22
	TREA 75	CE068	Step III Tertiary Crusher Line 27 Scrubber	National Dust (525 Hydrofilter)	3/1/1977	Particulate Matter	100	95	No	Null	Other	Engineering estimate	3.9	10	22
						PM < 2.5 micron	100	90	No	Null	Other	Engineering estimate	3.9	10	22
						PM < 10 micron	100	94.3	No	Null	Other	Engineering estimate	3.9	10	22
	TREA 76	CE069	Step III Tertiary Crusher Line 28 Scrubber	National Dust (525 Hydrofilter)	3/1/1977	Particulate Matter	100	95	No	Null	Other	Engineering estimate	3.9	10	22
						PM < 2.5 micron	100	90	No	Null	Other	Engineering estimate	3.9	10	22
						PM < 10 micron	100	94.3	No	Null	Other	Engineering estimate	3.9	10	22
	TREA 86	CE079	Step III Concentrator Tripper Transfer Scrubber	National Dust (525 Hydrofilter)	5/29/1905	Particulate Matter	100	95	No	Null	Other	Engineering estimate	3.9	10	21
						PM < 2.5 micron	100	90	No	Null	Other	Engineering estimate	3.9	10	21
						PM < 10 micron	100	94.3	No	Null	Other	Engineering estimate	3.9	10	21
	TREA 103	CE099	Agglomerators II Line 4 Grate Feed Scrubber	W.W. Sly (Impinjet 165)	5/24/1905	Particulate Matter	100	95	No	Null	Other	Engineering estimate	3.2	9	42
						PM < 2.5 micron	100	90	No	Null	Other	Engineering estimate	3.2	9	42
						PM < 10 micron	100	94.3	No	Null	Other	Engineering estimate	3.2	9	42
	TREA 104	CE100	Agglomerators II Line 4 Grate Discharge Scrubber	W.W. Sly (Impinjet 165)	5/24/1905	Particulate Matter	100	95	No	Null	Other	Engineering estimate	3.2	9	42
						PM < 2.5 micron	100	90	No	Null	Other	Engineering estimate	3.2	9	42
						PM < 10 micron	100	94.3	No	Null	Other	Engineering estimate	3.2	9	42

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001-Wet Scrubber - High Efficiency	TREA 107	CE104	Agglomerator I Line 4 Cooler Discharge Scrubber	W.W. Sly (Impinjet 190)	5/24/1905	Particulate Matter	100	95	No	Null	Other	Engineering estimate	1.7	8	31	
						PM < 2.5 micron	100	90	No	Null	Other	Engineering estimate	1.7	8	31	
						PM < 10 micron	100	94.3	No	Null	Other	Engineering estimate	1.7	8	31	
	TREA 108	CE106	41, 46 Conveyor Transfer Scrubber	Ducon Dynamic (UW Model II)	5/24/1905	Particulate Matter	100	95	No	Null	Other	Engineering estimate	9.4	14.1	240	
						PM < 2.5 micron	100	90	No	Null	Other	Engineering estimate	9.4	14.1	240	
						PM < 10 micron	100	94.3	No	Null	Other	Engineering estimate	9.4	14.1	240	
	TREA 112	CE109	Agglomerator II Line 5 Grate Feed Scrubber	W.W. Sly (Impinjet 165)	5/24/1905	Particulate Matter	100	95	No	Null	Other	Engineering estimate	3.2	9	42	
						PM < 2.5 micron	100	90	No	Null	Other	Engineering estimate	3.2	9	42	
						PM < 10 micron	100	94.3	No	Null	Other	Engineering estimate	3.2	9	42	
	TREA 113	CE110	Agglomerator II Line 5 Grate Discharge Scrubber	W.W. Sly (Impinjet 165)	5/24/1905	Particulate Matter	100	96.6	No	Null	Other	Engineering estimate	3.2	9	42	
						PM < 2.5 micron	100	90	No	Null	Other	Engineering estimate	3.2	9	42	
						PM < 10 micron	100	94.5	No	Null	Other	Engineering estimate	3.2	9	42	
	TREA 120	CE006	Step III Coarse Crusher Pan Feeders Scrubber	National Dust (20KSTV)	9/1/1992	Particulate Matter	100	96.9	No	Null	Other	Engineering estimate	11.2	14	144	
						PM < 2.5 micron	100	90	No	Null	Other	Engineering estimate	11.2	14	144	
						PM < 10 micron	100	94.9	No	Null	Other	Engineering estimate	11.2	14	144	
	TREA 121	CE007	Step III Coarse Crusher Pan Feeders Scrubber	National Dust (325 Hydrofilter)	3/1/1977	Particulate Matter	100	96.9	No	Null	Other	Engineering estimate	4.9	10	22	
						PM < 2.5 micron	100	90	No	Null	Other	Engineering estimate	4.9	10	22	
						PM < 10 micron	100	94.9	No	Null	Other	Engineering estimate	4.9	10	22	
	TREA 126	CE012	Transfer House Conveyor Transfer Scrubber	National Dust (A11022)	6/6/1905	Particulate Matter	100	96.9	No	Null	Other	Engineering estimate	2.4	12	18.4	
						PM < 2.5 micron	100	90	No	Null	Other	Engineering estimate	2.4	12	18.4	
						PM < 10 micron	100	94.9	No	Null	Other	Engineering estimate	2.4	12	18.4	
	TREA 127	CE013	Surge Pile/Reclaim Scrubber	National Dust (entri-Rod Scrubber)	11/1/1979	Particulate Matter	100	96.9	No	Null	Other	Engineering estimate	2.4	12	18.4	
						PM < 2.5 micron	100	90	No	Null	Other	Engineering estimate	2.4	12	18.4	

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001-Wet Scrubber - High Efficiency	TREA 127	CE013	Surge Pile/Reclaim Scrubber	National Dust (entri-Rod Scrubber)	11/1/1979	PM < 10 micron	100	94.9	No	Null	Other	Engineering estimate	2.4	12	18.4
	TREA 132	CE114	Line 5 Pellet Cooler Discharge Scrubber	W.W. Sly (Impinjet 190)	5/24/1905	Particulate Matter	100	90	No	Null	Other	Engineering estimate	1.7	8	31
						PM < 2.5 micron	100	90	No	Null	Other	Engineering estimate	1.7	8	31
						PM < 10 micron	100	90	No	Null	Other	Engineering estimate	1.7	8	31
	TREA 133	CE116	41, 46 Conveyor Transfer Scrubber	Ducon Dynamic (UW Model II)	5/24/1905	Particulate Matter	100	90	No	Null	Other	Engineering estimate	9.4	16.4	240
						PM < 2.5 micron	100	90	No	Null	Other	Engineering estimate	9.4	16.4	240
						PM < 10 micron	100	90	No	Null	Other	Engineering estimate	9.4	16.4	240
	TREA 134	CE117	Agglomerator III S3 Conveyor Transfer Scrubber	W.W. Sly (Impinjet 180)	9/1/1978	Particulate Matter	100	95	No	Null	Other	Engineering estimate	3	8	33
						PM < 2.5 micron	100	90	No	Null	Other	Engineering estimate	3	8	33
						PM < 10 micron	100	94.3	No	Null	Other	Engineering estimate	3	8	33
	TREA 138	CE121	Line 6 Grate Feed Scrubber	W.W. Sly (Impinjet 160))	9/1/1978	Particulate Matter	100	95	No	Null	Other	Engineering estimate	3	8	33
						PM < 2.5 micron	100	90	No	Null	Other	Engineering estimate	3	8	33
						PM < 10 micron	100	94.3	No	Null	Other	Engineering estimate	3	8	33
	TREA 139	CE122	Line 6 Grate Discharge Scrubber	W.W. Sly (Impinjet 160)	9/1/1978	Particulate Matter	100	95	No	Null	Other	Engineering estimate	3	8	33
						PM < 2.5 micron	100	90	No	Null	Other	Engineering estimate	3	8	33
						PM < 10 micron	100	94.3	No	Null	Other	Engineering estimate	3	8	33
	TREA 143	CE126	Line 6 Waste Gas Stack Scrubber	Riley Engineering (Venturi Rod)	2/1/1975	Particulate Matter	100	90	No	Null	Other	Engineering estimate	7.2	12	999.9
						PM < 2.5 micron	100	90	No	Null	Other	Engineering estimate	7.2	12	999.9
						PM < 10 micron	100	90	No	Null	Other	Engineering estimate	7.2	12	999.9
						Sulfur Dioxide	100	90	Yes	Large	Other	Engineering Estimate	7.2	12	999.9
	TREA 146	CE131	Line 7 Grate Feed Scrubber	W.W. Sly (Impinjet 160)	9/1/1978	Particulate Matter	100	95	No	Null	Other	Engineering estimate	3	8	33
						PM < 2.5 micron	100	90	No	Null	Other	Engineering estimate	3	8	33
						PM < 10 micron	100	94.3	No	Null	Other	Engineering estimate	3	8	33

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001-Wet Scrubber - High Efficiency	TREA 147	CE132	Line 7 Grate Discharge Scrubber	W.W. Sly (Impinjet 160)	9/1/1978	Particulate Matter	100	96.6	No	Null	Other	Engineering estimate	3	8	33	
						PM < 2.5 micron	100	90	No	Null	Other	Engineering estimate	3	8	33	
						PM < 10 micron	100	94.5	No	Null	Other	Engineering estimate	3	8	33	
	TREA 151	CE136	Line 7 Waste Gas Stack Scrubber	Riley Engineering (Venturi Rod)	12/1/1975	Particulate Matter	100	90	No	Null	Other	Engineering estimate	5.7	12	999.9	
						PM < 2.5 micron	100	90	No	Null	Other	Engineering estimate	5.7	12	999.9	
						PM < 10 micron	100	90	No	Null	Other	Engineering estimate	5.7	12	999.9	
						Sulfur Dioxide	100	90	Yes	Large	Other	Engineering Estimate	5.7	12	999.9	
	TREA 172	CE084	Line 3 Grate Feed Dynamic Wet Scrubber	Ducon Dynamic (UW Model II)	7/1/1967	Particulate Matter	100	95	No	Null	Other	Engineering estimate	Null	Null	7	
						PM < 2.5 micron	100	90	No	Null	Other	Engineering estimate	Null	Null	7	
						PM < 10 micron	100	94.3	No	Null	Other	Engineering estimate	Null	Null	7	
	TREA 173	CE085	Line 3 Grate Discharge Dynamic Wet Scrubber	Ducon Dynamic (UW Model II)	7/1/1967	Particulate Matter	100	96.6	No	Null	Other	Engineering estimate	Null	Null	7	
						PM < 2.5 micron	100	90	No	Null	Other	Engineering estimate	Null	Null	7	
						PM < 10 micron	100	94.5	No	Null	Other	Engineering estimate	Null	Null	7	
	TREA 174	CE089	Line 3 Cooler Discharge Dynamic Wet Scrubber	Ducon Dynamic (UW Model II)	7/1/1967	Particulate Matter	100	95	No	Null	Other	Engineering estimate	Null	Null	28	
						PM < 2.5 micron	100	90	Null	Null	Other	Engineering estimate	Null	Null	28	
						PM < 10 micron	100	94.3	No	Null	Other	Engineering estimate	Null	Null	28	
	TREA 175	CE090	Line 3 Pellet Cooler Scrubber	Ducon Dynamic (UW Model II)	7/1/1967	Particulate Matter	100	95	No	Null	Other	Engineering estimate	Null	Null	7	
						PM < 2.5 micron	100	90	No	Null	Other	Engineering estimate	Null	Null	7	
						PM < 10 micron	100	94.3	No	Null	Other	Engineering estimate	Null	Null	7	
	TREA 176	CE091	Step 1 Agglomerator 042 043 Conveyor Dynamic Wet Scrubber	Ducon Dynamic (UW Model II)	7/1/1967	Particulate Matter	100	95	No	Null	Other	Engineering estimate	Null	Null	7	
						PM < 2.5 micron	100	90	No	Null	Other	Engineering estimate	Null	Null	7	
						PM < 10 micron	100	94.3	No	Null	Other	Engineering estimate	Null	Null	7	
	TREA 177	CE092	Line 3 Conveyor Transfer 041 042 Dynamic Wet	Ducon Dynamic (UW Model II)	7/1/1967	Particulate Matter	100	95	No	Null	Other	Engineering estimate	Null	Null	7	

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001-Wet Scrubber - High Efficiency	TREA 177	CE092	Line 3 Conveyor Transfer 041 042 Dynamic Wet Scrubber	Ducon Dynamic (UW Model II)	7/1/1967	PM < 2.5 micron	100	90	No	Null	Other	Engineering estimate	Null	Null	7	
						PM < 10 micron	100	94.3	No	Null	Other	Engineering estimate	Null	Null	7	
	TREA 178	CE105	Line 4 Fines Conveyor Dynamic Wet Scrubber	Ducon Dynamic (UW Model II)	5/24/1905	Particulate Matter	100	95	No	Null	Other	Engineering estimate	Null	Null	280	
						PM < 2.5 micron	100	90	No	Null	Other	Engineering estimate	Null	Null	280	
						PM < 10 micron	100	94.3	No	Null	Other	Engineering estimate	Null	Null	280	
	TREA 179	CE115	Line 5 Fines Conveyor Dynamic Wet Scrubber	Ducon Dynamic (UW Model II)	5/24/1905	Particulate Matter	100	95	No	Null	Other	Engineering estimate	Null	Null	280	
						PM < 2.5 micron	100	90	No	Null	Other	Engineering estimate	Null	Null	280	
						PM < 10 micron	100	94.3	No	Null	Other	Engineering estimate	Null	Null	280	
	TREA 185	CE151	Agglomerator III Line 7 Conveyor Transfer Scrubber	Jardar (JSS065)	12/1/2005	Particulate Matter	100	95	No	Null	Other	Engineering estimate	5.6	9.5	130	
						PM < 2.5 micron	100	90	No	Null	Other	Engineering estimate	5.6	9.5	130	
						PM < 10 micron	100	94.3	No	Null	Other	Engineering estimate	5.6	9.5	130	
	TREA 187	CE149	Step III Storage Bin Line 15, 16 Scrubber	Clean Gas Systems (MultiScrub-C Size 114)	1/1/2005	Particulate Matter	100	95	No	Null	Other	Engineering estimate	5.3	8	58	
						PM < 2.5 micron	100	90	No	Null	Other	Engineering estimate	5.3	8	58	
						PM < 10 micron	100	94.3	No	Null	Other	Engineering estimate	5.3	8	58	
	TREA 188	CE152	Storage Bins Lines 1,2 Scrubber	Clean Gas Systems (MultiScrub-C Size 90)	1/1/2006	Particulate Matter	100	95	No	Null	Other	Engineering estimate	5	7	50	
						PM < 2.5 micron	100	90	No	Null	Other	Engineering estimate	5	7	50	
						PM < 10 micron	100	94.3	No	Null	Other	Engineering estimate	5	7	50	
	TREA 189	CE153	Storage Bins Lines 3,4 Scrubber	Clean Gas Systems (MultiScrub-C Size 90)	1/1/2006	Particulate Matter	100	95	No	Null	Other	Engineering estimate	4.1	8	42	
						PM < 2.5 micron	100	90	No	Null	Other	Engineering estimate	4.1	8	42	
						PM < 10 micron	100	94.3	No	Null	Other	Engineering estimate	4.1	8	42	
	TREA 190	CE154	Storage Bins Lines 5,6 Scrubber	Clean Gas Systems (MultiScrub-C Size 102)	1/1/2006	Particulate Matter	100	95	No	Null	Other	Engineering estimate	4.1	8	42	
						PM < 2.5 micron	100	90	No	Null	Other	Engineering estimate	4.1	8	42	
						PM < 10 micron	100	94.3	No	Null	Other	Engineering estimate	4.1	8	42	

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001-Wet Scrubber - High Efficiency	TREA 191	CE155	Storage Bins Lines 7,8 Scrubber	Clean Gas Systems (MultiScrub-C Size 84)	1/1/2006	Particulate Matter	100	95	No	Null	Other	Engineering estimate	4.1	8	42
						PM < 2.5 micron	100	90	No	Null	Other	Engineering estimate	4.1	8	42
						PM < 10 micron	100	94.3	No	Null	Other	Engineering estimate	4.1	8	42
	TREA 192	CE156	Storage Bins Lines 9,10 Scrubber	Clean Gas Systems (MultiScrub-C Size 90)	1/1/2006	Particulate Matter	100	95	No	Null	Other	Engineering estimate	4.1	8	42
						PM < 2.5 micron	100	90	No	Null	Other	Engineering estimate	4.1	8	42
						PM < 10 micron	100	94.3	No	Null	Other	Engineering estimate	4.1	8	42
	TREA 193	CE157	Storage Bins Lines 11,12 Scrubber	Clean Gas Systems (MultiScrub-C Size 102)	1/1/2006	Particulate Matter	100	95	No	Null	Other	Engineering estimate	4.1	8	42
						PM < 2.5 micron	100	90	No	Null	Other	Engineering estimate	4.1	8	42
						PM < 10 micron	100	94.3	No	Null	Other	Engineering estimate	4.1	8	42
	TREA 224	CE147	Line 3 Waste Gas Scrubber	STS ((custom))	1/1/2005	Particulate Matter	100	90	No	Null	Mfr/ Vendor data	Null	6.3	13	999.9
						PM < 2.5 micron	100	90	No	Null	Mfr/ Vendor data	Null	6.3	13	999.9
						PM < 10 micron	100	90	No	Null	Mfr/ Vendor data	Null	6.3	13	999.9
						Sulfur Dioxide	100	90	Yes	Large	Other	Engineering Estimate	6.3	13	999.9
053-Venturi Scrubber	TREA 225	Null	L6 Steam Collection Venturi Scrubber	Jardar Systems, Inc (JSS030-SS)	11/8/2023	Particulate Matter	100	95	No	Null	Control Equipment Rule	Null	5.8	13	100
						PM < 2.5 micron	100	90	No	Null	Other	Engineering estimate	5.8	13	100
						PM < 10 micron	100	94.3	No	Null	Control Equipment Rule	Null	5.8	13	100

Other Controls

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Subject Item Type	Subject Item ID	Delta Designation	Description	Manufacturer (Model #)	Installation Start Date	Pollutants Controlled	Capture Efficiency (%)	Destruction/ Collect Efficiency (%)	Subject to CAM?	Large or Other PSEU?	Efficiency Basis	Other Basis Explanation	Other operating parameters?	Other operating parameters description	
099-Other	TREA 268	Null	Road dust suppression	NA (NA)	9/10/1967	Particulate Matter	100	90	No	Null	Other	engineering estimate	No	Null	
						PM < 2.5 micron	100	90	No	Null	Other	engineering estimate	No	Null	
						PM < 10 micron	100	90	No	Null	Other	engineering estimate	No	Null	

Fabric Filters

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018-Fabric Filter - Low Temp, T<180 Degrees F	TREA 89	CE142	S3 Bentonite Storage Baghouse	Wheelabrator Jet III (108)	TBD	Particulate Matter	100	99.4	No	Null	Other	Engineering Estimate	0.5	6	No	
						PM < 2.5 micron	100	99	No	Null	Other	Engineering Estimate	0.5	6	No	
						PM < 10 micron	100	99.3	No	Null	Other	Engineering Estimate	0.5	6	No	
	TREA 90	CE143	Limestone Receiving Baghouse	Air Cure (544AC14)	6/19/1905	Particulate Matter	100	99.4	No	Null	Other	Engineering Estimate	0.5	8	No	
						PM < 2.5 micron	100	99	No	Null	Other	Engineering Estimate	0.5	8	No	
						PM < 10 micron	100	99.3	No	Null	Other	Engineering Estimate	0.5	8	No	
	TREA 94	CE083	Line 3 Bentonite Blending Baghouse	Donaldson Torit (DFT 3-24)	3/15/2010	Particulate Matter	100	99.4	No	Null	Other	Engineering Estimate	0.5	8	No	
						PM < 2.5 micron	100	99	No	Null	Other	Engineering Estimate	0.5	8	No	
						PM < 10 micron	100	99.3	No	Null	Other	Engineering Estimate	0.5	8	No	
	TREA 97	CE093	S1 Bentonite Storage Baghouse	Donaldson Torit (DFT 4-32)	3/15/2011	Particulate Matter	100	99.4	No	Null	Other	Engineering Estimate	0.5	8	No	
						PM < 2.5 micron	100	99	No	Null	Other	Engineering Estimate	0.5	8	No	
						PM < 10 micron	100	99.3	No	Null	Other	Engineering Estimate	0.5	8	No	
	TREA 98	CE094	Line 2, 3 Bentonite Day Bin Baghouse	Donaldson Torit (DFT 3-6)	3/15/2011	Particulate Matter	100	99.4	No	Null	Other	Engineering Estimate	0.5	8	No	
						PM < 2.5 micron	100	99	No	Null	Other	Engineering Estimate	0.5	8	No	
						PM < 10 micron	100	99.3	No	Null	Other	Engineering Estimate	0.5	8	No	
	TREA 99	CE095	Agglomerators I & II Bentonite Unloading Baghouse	Mikropul (Pulsejet)	6/10/1905	Particulate Matter	100	99	No	Null	Other	Engineering Estimate	2	8	No	
						PM < 2.5 micron	0	99	No	Null	Other	Engineering Estimate	2	8	No	
						PM < 10 micron	100	99	No	Null	Other	Engineering Estimate	2	8	No	
	TREA 100	CE096	S2 Bentonite Storage Baghouse	Donaldson Torit (DFT 4-32)	3/15/2011	Particulate Matter	100	99.4	No	Null	Other	Engineering Estimate	0.5	8	No	
						PM < 2.5 micron	100	99	No	Null	Other	Engineering Estimate	0.5	8	No	
						PM < 10 micron	100	99.3	No	Null	Other	Engineering Estimate	0.5	8	No	
	TREA 101	CE097	Line 4 Bentonite Day Bin Baghouse	Donaldson Torit (DFT 3-6)	2/15/2010	Particulate Matter	100	99.4	No	Null	Other	Engineering Estimate	0.5	8	No	
						PM < 2.5 micron	100	99	No	Null	Other	Engineering Estimate	0.5	8	No	
						PM < 10 micron	100	99.3	No	Null	Other	Engineering Estimate	0.5	8	No	
	TREA 102	CE098	Line 4 Bentonite Blending Baghouse	Donaldson Torit (DFT 3-24)	2/15/2010	Particulate Matter	100	99.4	No	Null	Other	Engineering Estimate	0.5	8	No	

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018-Fabric Filter - Low Temp, T<180 Degrees F	TREA 102	CE096	Line 4 Bentonite Blending Baghouse	Donaldson Torit (DFT 3-24)	2/15/2010	PM < 2.5 micron	100	99	No	Null	Other	Engineering Estimate	0.5	8	No
						PM < 10 micron	100	99.3	No	Null	Other	Engineering Estimate	0.5	8	No
	TREA 110	CE107	Line 5 Bentonite Day Bin Baghouse	Donaldson Torit (DFT 3-6)	9/15/2010	Particulate Matter	100	99.4	No	Null	Other	Engineering Estimate	0.5	8	No
						PM < 2.5 micron	100	99	No	Null	Other	Engineering Estimate	0.5	8	No
						PM < 10 micron	100	99.3	No	Null	Other	Engineering Estimate	0.5	8	No
	TREA 111	CE108	Line 5 Bentonite Blending Baghouse	Donaldson Torit (DFT 3-24)	9/15/2010	Particulate Matter	100	99.4	No	Null	Other	Engineering Estimate	0.5	8	No
						PM < 2.5 micron	100	99	No	Null	Other	Engineering Estimate	0.5	8	No
						PM < 10 micron	100	99.3	No	Null	Other	Engineering Estimate	0.5	8	No
	TREA 115	CE001	Step I Coarse Crusher Baghouse	Cotrell (CDMS-2-5-5437)	9/1/1970	Particulate Matter	100	99.4	No	Null	Other	Engineering Estimate	3	12	Yes
						PM < 2.5 micron	100	99	No	Null	Other	Engineering Estimate	3	12	Yes
						PM < 10 micron	100	99.4	No	Null	Other	Engineering Estimate	3	12	Yes
	TREA 116	CE002	Step II Coarse Crusher Baghouse	Cotrell (CDMS-2-5-5437)	9/1/1970	Particulate Matter	100	99.4	No	Null	Other	Engineering Estimate	3	12	Yes
						PM < 2.5 micron	100	99	No	Null	Other	Engineering Estimate	3	12	Yes
						PM < 10 micron	100	99.4	No	Null	Other	Engineering Estimate	3	12	Yes
	TREA 117	CE003	Step III Coarse Crusher Baghouse	Envitech Buell (6-294-14-10)	4/1/1978	Particulate Matter	100	99.4	No	Null	Other	Engineering Estimate	3	12	Yes
						PM < 2.5 micron	100	99	No	Null	Other	Engineering Estimate	3	12	Yes
						PM < 10 micron	100	99.4	No	Null	Other	Engineering Estimate	3	12	Yes
	TREA 130	CE129	Line 7 Bentonite Day Bin Baghouse	Donaldson Torit (DFT 3-6)	2/15/2010	Particulate Matter	100	99.4	No	Null	Other	Engineering Estimate	0.5	8	No
						PM < 2.5 micron	100	99	No	Null	Other	Engineering Estimate	0.5	8	No
						PM < 10 micron	100	99.3	No	Null	Other	Engineering Estimate	0.5	8	No
	TREA 135	CE118	S3 Bentonite Storage Baghouse	American Filter (10-48-600 Modell B)	9/1/1978	Particulate Matter	100	99.4	No	Null	Other	Engineering Estimate	0.5	6	No
						PM < 2.5 micron	100	99	No	Null	Other	Engineering Estimate	0.5	6	No
						PM < 10 micron	100	99.3	No	Null	Other	Engineering Estimate	0.5	6	No
	TREA 136	CE119	Line 6 Bentonite Day Bin Baghouse	Donaldson Torit (DFT 3-6)	4/15/2011	Particulate Matter	100	99.4	No	Null	Other	Engineering Estimate	0.5	8	No
						PM < 2.5 micron	100	99	No	Null	Other	Engineering Estimate	0.5	8	No

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Subject Item Type 018-Fabric Filter - Low Temp, T<180 Degrees F	Subject Item ID TREA 136	Delta Designation CE119	Description Line 6 Bentonite Day Bin Baghouse	Manufacturer (Model #) Donaldson Torit (DFT 3-6)	Installation Start Date 4/15/2011	Pollutants Controlled	Capture Efficiency (%)	Destruction/ Collect Efficiency (%)	Subject to CAM?	Large or Other PSEU?	Efficiency Basis	Other Basis Explanation	Filter Min Pressure Drop (in. of w.c.)	Filter Max Pressure Drop (in. of w.c.)	Bag leak detector in use?
	TREA 137	CE120	Line 6 Bentonite Blending Baghouse	Donaldson Torit (DFT 3-24)	4/15/2011	PM < 10 micron	100	99.3	No	Null	Other	Engineering Estimate	0.5	8	No
						Particulate Matter	100	99.4	No	Null	Other	Engineering Estimate	0.5	8	No
						PM < 2.5 micron	100	99	No	Null	Other	Engineering Estimate	0.5	8	No
						PM < 10 micron	100	99.3	No	Null	Other	Engineering Estimate	0.5	8	No
	TREA 145	CE130	Line 7 Bentonite Blending Baghouse	Donaldson Torit (DFT 3-24)	2/15/2010	Particulate Matter	100	99.4	No	Null	Other	Engineering Estimate	0.5	8	No
						PM < 2.5 micron	100	99	No	Null	Other	Engineering Estimate	0.5	8	No
						PM < 10 micron	100	99.3	No	Null	Other	Engineering Estimate	0.5	8	No
	TREA 171	CE144	Hill Wood Products Baghouse	Null	6/22/1905	Particulate Matter	100	90	No	Null	Other	Hill Wood Products?	Null	Null	No
						PM < 2.5 micron	100	90	No	Null	Other	Hill Wood Products?	Null	Null	No
						PM < 10 micron	100	90	No	Null	Other	Hill Wood Products?	Null	Null	No
	TREA 194	CE158	Step I Tertiary Crusher Line 1 Baghouse	Donaldson Torit (DFT 4-64)	2/3/2010	Particulate Matter	100	99.4	No	Null	Other	Engineering Estimate	0.5	8	Yes
						PM < 2.5 micron	100	99	No	Null	Other	Engineering Estimate	0.5	8	Yes
						PM < 10 micron	100	99.3	No	Null	Other	Engineering Estimate	0.5	8	Yes
	TREA 195	CE159	Step I Tertiary Crusher Line 2 Baghouse	Donaldson Torit (DFT 4-64)	7/1/2010	Particulate Matter	100	99.4	No	Null	Other	Engineering Estimate	0.5	8	Yes
						PM < 2.5 micron	100	99	No	Null	Other	Engineering Estimate	0.5	8	Yes
						PM < 10 micron	100	99.3	No	Null	Other	Engineering Estimate	0.5	8	Yes
	TREA 196	CE160	Step I Tertiary Crusher Line 3 Baghouse	Donaldson Torit (DFT 4-64)	7/1/2010	Particulate Matter	100	99.4	No	Null	Other	Engineering Estimate	0.5	8	Yes
						PM < 2.5 micron	100	99	No	Null	Other	Engineering Estimate	0.5	8	Yes
						PM < 10 micron	100	99.3	No	Null	Other	Engineering Estimate	0.5	8	Yes
	TREA 197	CE161	Step I Tertiary Crusher Line 4 Baghouse	Donaldson Torit (DFT 4-64)	7/1/2010	Particulate Matter	100	99.4	No	Null	Other	Engineering Estimate	0.5	8	Yes
						PM < 2.5 micron	100	99	No	Null	Other	Engineering Estimate	0.5	8	Yes
						PM < 10 micron	100	99.3	No	Null	Other	Engineering Estimate	0.5	8	Yes
	TREA 198	CE162	Step I Tertiary Crusher Line 5 Baghouse	Donaldson Torit (DFT 4-64)	7/1/2010	Particulate Matter	100	99.4	No	Null	Other	Engineering Estimate	0.5	8	Yes
						PM < 2.5 micron	100	99	No	Null	Other	Engineering Estimate	0.5	8	Yes
						PM < 10 micron	100	99.3	No	Null	Other	Engineering Estimate	0.5	8	Yes

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Subject Item Type 018-Fabric Filter - Low Temp, T<180 Degrees F	Subject Item ID	Delta Designation	Description	Manufacturer (Model #)	Installation Start Date	Pollutants Controlled	Capture Efficiency (%)	Destruction/ Collect Efficiency (%)	Subject to CAM?	Large or Other PSEU?	Efficiency Basis	Other Basis Explanation	Filter Min Pressure Drop (in. of w.c.)	Filter Max Pressure Drop (in. of w.c.)	Bag leak detector in use?	
	TREA 199	CE163	Step I Tertiary Crusher Line 6 Baghouse	Donaldson Torit (DFT 4-64)	7/1/2010	Particulate Matter	100	99.4	No	Null	Other	Engineering Estimate	0.5	8	Yes	
						PM < 2.5 micron	100	99	No	Null	Other	Engineering Estimate	0.5	8	Yes	
						PM < 10 micron	100	99.3	No	Null	Other	Engineering Estimate	0.5	8	Yes	
	TREA 200	CE164	Step I Tertiary Crusher Line 7 Baghouse	Donaldson Torit (DFT 4-64)	7/1/2010	Particulate Matter	100	99.4	No	Null	Other	Engineering Estimate	0.5	8	Yes	
						PM < 2.5 micron	100	99	No	Null	Other	Engineering Estimate	0.5	8	Yes	
						PM < 10 micron	100	99.4	No	Null	Other	Engineering Estimate	0.5	8	Yes	
	TREA 201	CE165	Step I Tertiary Crusher Line 8 Baghouse	Donaldson Torit (DFT 4-64)	7/1/2010	Particulate Matter	100	99.4	No	Null	Other	Engineering Estimate	0.5	8	Yes	
						PM < 2.5 micron	100	99	No	Null	Other	Engineering Estimate	0.5	8	Yes	
						PM < 10 micron	100	99.3	No	Null	Other	Engineering Estimate	0.5	8	Yes	
	TREA 202	CE166	Step I Tertiary Crusher Line 9 Baghouse	Donaldson Torit (DFT 4-64)	7/1/2010	Particulate Matter	100	99.4	No	Null	Other	Engineering Estimate	0.5	8	Yes	
						PM < 2.5 micron	100	99	No	Null	Other	Engineering Estimate	0.5	8	Yes	
						PM < 10 micron	100	99.3	No	Null	Other	Engineering Estimate	0.5	8	Yes	
	TREA 203	CE167	Step I Tertiary Crusher Line 10 Baghouse	Donaldson Torit (DFT 4-64)	7/1/2010	Particulate Matter	100	99.4	No	Null	Other	Engineering Estimate	0.5	8	Yes	
						PM < 2.5 micron	100	99	No	Null	Other	Engineering Estimate	0.5	8	Yes	
						PM < 10 micron	100	99.3	No	Null	Other	Engineering Estimate	0.5	8	Yes	
	TREA 204	CE168	Step I Tertiary Crusher Line 11 Baghouse	Donaldson Torit (DFT 4-64)	7/1/2010	Particulate Matter	100	99.4	No	Null	Other	Engineering Estimate	0.5	8	Yes	
						PM < 2.5 micron	100	99	No	Null	Other	Engineering Estimate	0.5	8	Yes	
						PM < 10 micron	100	99.3	No	Null	Other	Engineering Estimate	0.5	8	Yes	
	TREA 205	CE169	Step I Tertiary Crusher Line 12 Baghouse	Donaldson Torit (DFT 4-64)	7/1/2010	Particulate Matter	100	99.4	No	Null	Other	Engineering Estimate	0.5	8	Yes	
						PM < 2.5 micron	100	99	No	Null	Other	Engineering Estimate	0.5	8	Yes	
						PM < 10 micron	100	99.3	No	Null	Other	Engineering Estimate	0.5	8	Yes	
	TREA 206	CE170	Step I Tertiary Crusher Line 13 Baghouse	Donaldson Torit (DFT 4-64)	7/1/2010	Particulate Matter	100	99.4	No	Null	Other	Engineering Estimate	0.5	8	Yes	
						PM < 2.5 micron	100	99	No	Null	Other	Engineering Estimate	0.5	8	Yes	
						PM < 10 micron	100	99.3	No	Null	Other	Engineering Estimate	0.5	8	Yes	
	TREA 207	CE171	Step I Tertiary Crusher Line 14 Baghouse	Donaldson Torit (DFT 4-64)	7/1/2010	Particulate Matter	100	99.4	No	Null	Other	Engineering Estimate	0.5	8	Yes	

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018-Fabric Filter - Low Temp, T<180 Degrees F	TREA 207	CE171	Step I Tertiary Crusher Line 14 Baghouse	Torit (DFT 4-64)	7/1/2010	PM < 2.5 micron	100	99	No	Null	Other	Engineering Estimate	0.5	8	Yes
						PM < 10 micron	100	99.3	No	Null	Other	Engineering Estimate	0.5	8	Yes
	TREA 208	CE172	Step I Tertiary Crusher Line 15 Baghouse	Donaldson Torit (DFT 4-64)	7/1/2010	Particulate Matter	100	99.4	No	Null	Other	Engineering Estimate	0.5	8	Yes
						PM < 2.5 micron	100	99	No	Null	Other	Engineering Estimate	0.5	8	Yes
						PM < 10 micron	100	99.3	No	Null	Other	Engineering Estimate	0.5	8	Yes
	TREA 209	CE173	Step I Tertiary Crusher Line 16 Baghouse	Donaldson Torit (DFT 4-64)	7/1/2010	Particulate Matter	100	99.4	No	Null	Other	Engineering Estimate	0.5	8	Yes
						PM < 2.5 micron	100	99	No	Null	Other	Engineering Estimate	0.5	8	Yes
						PM < 10 micron	100	99.3	No	Null	Other	Engineering Estimate	0.5	8	Yes
	TREA 210	CE174	Conveyor Transfer 004-005 Baghouse	MAC (MAC2flo 4M2F112))	2/1/2011	Particulate Matter	100	99.4	No	Null	Other	Engineering Estimate	0.5	8	Yes
						PM < 2.5 micron	100	99	No	Null	Other	Engineering Estimate	0.5	8	Yes
						PM < 10 micron	100	99.3	No	Null	Other	Engineering Estimate	0.5	8	Yes
	TREA 211	CE175	Agglomerators I & II Bentonite Unloading Baghouse	Donaldson Torit (DFT 4-32)	3/14/2011	Particulate Matter	100	99.4	No	Null	Other	Engineering Estimate	0.5	8	Yes
						PM < 2.5 micron	100	99	No	Null	Other	Engineering Estimate	0.5	8	Yes
						PM < 10 micron	100	99.3	No	Null	Other	Engineering Estimate	0.5	8	Yes
	TREA 212	CE187	Step I & II Conveyor transfer 010-01 Baghouse	US Air Filtration (DPP 3-24)	9/18/2020	Particulate Matter	100	99.4	No	Null	Other	Engineering Estimate	0.5	8	Yes
						PM < 2.5 micron	100	99	No	Null	Other	Engineering Estimate	0.5	8	Yes
						PM < 10 micron	100	99.3	No	Null	Other	Engineering Estimate	0.5	8	Yes
	TREA 213	CE198	Step I conveyor 005-006 Baghouse	Donaldson Torit (DPT 4-48)	6/17/2019	Particulate Matter	100	99.4	No	Null	Other	Engineering Estimate	0.5	8	Yes
						PM < 2.5 micron	100	99	No	Null	Other	Engineering Estimate	0.5	8	Yes
						PM < 10 micron	100	99.3	No	Null	Other	Engineering Estimate	0.5	8	Yes
	TREA 214	CE229	Limestone Conveyor Transfer Baghouse	Donaldson Torit (DPT 4-48)	1/16/2016	Particulate Matter	100	99.4	No	Null	Other	Engineering Estimate	0.5	8	Yes
						PM < 2.5 micron	100	99	No	Null	Other	Engineering Estimate	0.5	8	Yes
						PM < 10 micron	100	99.3	No	Null	Other	Engineering Estimate	0.5	8	Yes
	TREA 215	CE230	Step III conveyor 005-006 Baghouse	Donaldson Torit (DPT 4-32)	10/2/2019	Particulate Matter	100	99.4	No	Null	Other	Engineering Estimate	0.5	8	Yes
						PM < 2.5 micron	100	99	No	Null	Other	Engineering Estimate	0.5	8	Yes

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018-Fabric Filter - Low Temp, T<180 Degrees F	TREA 215	CE230	Step III conveyor 005-006 Baghouse	Donaldson Tortit (DPT 4-32)	10/2/2019	PM < 10 micron	100	99.3	No	Null	Other	Engineering Estimate	0.5	8	Yes
	TREA 216	CE233	Step III Storage Bin Lines 17, 18 Baghouse	US Air Filtration (4DCP-80)	10/22/2020	Particulate Matter	100	99.4	No	Null	Other	Engineering Estimate	0.5	8	Yes
						PM < 2.5 micron	100	99	No	Null	Other	Engineering Estimate	0.5	8	Yes
						PM < 10 micron	100	99.3	No	Null	Other	Engineering Estimate	0.5	8	Yes
	TREA 217	Null	Storage Bin L15,16 Cartridge Filter	U.S Air Filtration Inc (I30102)	TBD	Particulate Matter	100	99.4	No	Null	Other	Engineering Estimate	0.5	8	Yes
						PM < 2.5 micron	100	99	No	Null	Other	Engineering Estimate	0.5	8	Yes
						PM < 10 micron	100	99.3	No	Null	Other	Engineering Estimate	0.5	8	Yes
	TREA 218	CE235	Step III Storage Bin Lines 13, 14 Baghouse	U.S Air Filtration Inc (I30102)	6/22/2022	Particulate Matter	100	99	No	Null	Other	Engineering Estimate	0.5	8	Yes
						PM < 2.5 micron	100	99	No	Null	Other	Engineering Estimate	0.5	8	Yes
						PM < 10 micron	100	99	No	Null	Other	Engineering Estimate	0.5	8	Yes
	TREA 219	CE191	Step III Conveyor Transfer 005 Feed Baghouse	US Air Filtration (DCP-12)	7/2/2021	Particulate Matter	100	99.4	No	Null	Other	Engineering Estimate	0.5	8	Yes
						PM < 2.5 micron	100	99	No	Null	Other	Engineering Estimate	0.5	8	Yes
						PM < 10 micron	100	99.3	Yes	Other	Mfr/ Vendor data	Engineering Estimate	0.5	8	Yes
	TREA 220	CE192	Step III Conveyor Transfer 005 Discharge Baghouse	US Air Filtration (DCP-12)	7/2/2021	Particulate Matter	100	99.4	No	Null	Other	Engineering Estimate	0.5	8	Yes
						PM < 2.5 micron	100	99	No	Null	Other	Engineering Estimate	0.5	8	Yes
						PM < 10 micron	100	99.3	Yes	Other	Other	Engineering Estimate	0.5	8	Yes
	TREA 221	Null	Step I Conveyor Transfer 008 to 009 Baghouse	Donaldson Tortit (DPT 4-32)	12/5/2022	Particulate Matter	100	99.4	No	Null	Other	Engineering Estimate	0.5	8	Yes
						PM < 2.5 micron	100	99	No	Null	Other	Engineering Estimate	0.5	8	Yes
						PM < 10 micron	100	99.3	No	Null	Other	Engineering Estimate	0.5	8	Yes
	TREA 222	Null	Step I Conveyor Transfer 003 to 004 Baghouse	Donaldson Tortit (DPT 4-48)	11/3/2022	Particulate Matter	100	99.4	No	Null	Other	Engineering Estimate	0.5	8	Yes
						PM < 2.5 micron	100	99	No	Null	Other	Engineering Estimate	0.5	8	Yes
						PM < 10 micron	100	99.3	No	Null	Other	Engineering Estimate	0.5	8	Yes
	TREA 223	Null	Step I Secondary Crusher Line 1 Baghouse	Donaldson Tortit (DPT 4-32)	12/5/2022	Particulate Matter	100	99.4	No	Null	Other	Engineering Estimate	0.5	8	Yes
						PM < 2.5 micron	100	99	No	Null	Other	Engineering Estimate	0.5	8	Yes
						PM < 10 micron	100	99.3	No	Null	Other	Engineering Estimate	0.5	8	Yes

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Subject Item Type 018-Fabric Filter - Low Temp, T<180 Degrees F	Subject Item ID	Delta Designation	Description	Manufacturer (Model #)	Installation Start Date	Pollutants Controlled	Capture Efficiency (%)	Destruction/ Collect Efficiency (%)	Subject to CAM?	Large or Other PSEU?	Efficiency Basis	Other Basis Explanation	Filter Min Pressure Drop (in. of w.c.)	Filter Max Pressure Drop (in. of w.c.)	Bag leak detector in use?
	TREA 226	Null	Secondary Crusher L2 Cartridge Filter	Donaldson Torit (DFT 4-48)	8/18/2023	Particulate Matter	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes
	TREA 227	Null	Secondary Crusher L3 Cartridge Filter	Donaldson Torit (DFT 4-48)	8/29/2023	Particulate Matter	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes
	TREA 228	Null	Secondary Crusher L4 Cartridge Filter	Donaldson Torit (DFT 4-48)	9/28/2023	Particulate Matter	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes
	TREA 229	Null	Conveyor Transfer 009-020 Cartridge Filter	Donaldson Torit (DFT 4-32)	9/14/2023	Particulate Matter	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes
	TREA 230	Null	Conveyor Transfer 008-009 Cartridge Filter	Donaldson Torit (DFT 4-32)	12/7/2023	Particulate Matter	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes
	TREA 231	Null	Step I Coarse Crusher Pan Feeder Cartridge Filter	Donaldson Torit (DFT 3-24)	9/20/2024	Particulate Matter	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes
						PM < 2.5 micron	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes
						PM < 10 micron	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes
	TREA 232	Null	Step II Coarse Crusher Pan Feeder Cartridge Filter	Donaldson Torit (DFT 3-24)	12/19/2024	Particulate Matter	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes
						PM < 2.5 micron	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes
						PM < 10 micron	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes
	TREA 233	Null	Conveyor Transfer 005-006 Cartridge Filter	Donaldson Torit (DFT 3-24)	TBD	Particulate Matter	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes
						PM < 2.5 micron	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes
						PM < 10 micron	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes
	TREA 234	Null	Conveyor Transfer 001 to 070 Cartridge Filter	Donaldson Torit (DFT 3-24)	TBD	Particulate Matter	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes
						PM < 2.5 micron	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes
						PM < 10 micron	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes
	TREA 235	Null	Conveyor Transfer 005-006 Cartridge Filter	Donaldson Torit (DFT 3-24)	TBD	Particulate Matter	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes
						PM < 2.5 micron	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes
						PM < 10 micron	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes
	TREA 236	Null	Surge Pile/Reclaim 011-01 Cartridge Filter	Donaldson Torit (DFT 3-24)	TBD	Particulate Matter	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes
						PM < 2.5 micron	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes
						PM < 10 micron	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes
	TREA 237	Null	Conveyor Transfer 008-009 Cartridge Filter	Donaldson Torit (DFT 3-24)	TBD	Particulate Matter	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes
						PM < 2.5 micron	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes

Fabric Filters

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Subject Item Type	Subject Item ID	Delta Designation	Description	Manufacturer (Model #)	Installation Start Date	Pollutants Controlled	Capture Efficiency (%)	Destruction/Collect Efficiency (%)	Subject to CAM?	Large or Other PSEU?	Efficiency Basis	Other Basis Explanation	Filter Min Pressure Drop (in. of w.c.)	Filter Max Pressure Drop (in. of w.c.)	Bag leak detector in use?
018-Fabric Filter - Low Temp, T<180 Degrees F	TREA 237	Null	Conveyor Transfer 008-009 Cartridge Filter	Donaldson Torit (DFT 3-24)	TBD	PM < 10 micron	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes
	TREA 238	Null	Secondary Crusher L6 Cartridge Filter	Donaldson Torit (DFT 3-24)	TBD	Particulate Matter	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes
						PM < 2.5 micron	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes
						PM < 10 micron	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes
	TREA 239	Null	Secondary Crusher L8 Cartridge Filter	Donaldson Torit (DFT 3-24)	TBD	Particulate Matter	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes
						PM < 2.5 micron	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes
						PM < 10 micron	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes
	TREA 240	Null	Secondary Crusher L7 Cartridge Filter	Donaldson Torit (DFT 3-24)	TBD	Particulate Matter	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes
						PM < 2.5 micron	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes
						PM < 10 micron	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes
	TREA 241	Null	Secondary Crusher L9 Cartridge Filter	Donaldson Torit (DFT 3-24)	TBD	Particulate Matter	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes
						PM < 2.5 micron	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes
						PM < 10 micron	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes
	TREA 242	Null	Secondary Crusher L10 Cartridge Filter	Donaldson Torit (DFT 3-24)	TBD	Particulate Matter	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes
						PM < 2.5 micron	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes
						PM < 10 micron	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes
	TREA 243	Null	Step III Coarse Crusher Pan Feeders Cartridge Filter	Donaldson Torit (DFT 3-24)	TBD	Particulate Matter	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes
						PM < 2.5 micron	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes
						PM < 10 micron	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes
	TREA 244	Null	Conveyor Transfer 011-02/03 Cartridge Filter	Donaldson Torit (DFT 3-24)	TBD	Particulate Matter	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes
						PM < 2.5 micron	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes
						PM < 10 micron	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes
	TREA 245	Null	Secondary Crusher L11 Cartridge Filter	Donaldson Torit (DFT 3-24)	TBD	Particulate Matter	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes
						PM < 2.5 micron	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes
						PM < 10 micron	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes

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Subject Item Type 018-Fabric Filter - Low Temp, T<180 Degrees F	Subject Item ID	Delta Designation	Description	Manufacturer (Model #)	Installation Start Date	Pollutants Controlled	Capture Efficiency (%)	Destruction/ Collect Efficiency (%)	Subject to CAM?	Large or Other PSEU?	Efficiency Basis	Other Basis Explanation	Filter Min Pressure Drop (in. of w.c.)	Filter Max Pressure Drop (in. of w.c.)	Bag leak detector in use?	
	TREA 246	Null	Secondary Crusher L12 Cartridge Filter	Donaldson Torit (DFT 3-24)	TBD	Particulate Matter	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes	
						PM < 2.5 micron	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes	
						PM < 10 micron	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes	
	TREA 247	Null	Secondary Crusher L13 Cartridge Filter	Donaldson Torit (DFT 3-24)	TBD	Particulate Matter	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes	
						PM < 2.5 micron	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes	
						PM < 10 micron	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes	
	TREA 248	Null	Secondary Crusher L14 Cartridge Filter	Donaldson Torit (DFT 3-24)	10/30/2025	Particulate Matter	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes	
						PM < 2.5 micron	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes	
						PM < 10 micron	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes	
	TREA 249	Null	Secondary Crusher L15 Cartridge Filter	Donaldson Torit (DFT 3-24)	TBD	Particulate Matter	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes	
						PM < 2.5 micron	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes	
						PM < 10 micron	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes	
	TREA 250	Null	Tertiary Crusher L18 Cartridge Filter	Donaldson Torit (DFT 3-24)	TBD	Particulate Matter	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes	
						PM < 2.5 micron	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes	
						PM < 10 micron	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes	
	TREA 251	Null	Tertiary Crusher L21 Cartridge Filter	Donaldson Torit (DFT 3-24)	TBD	Particulate Matter	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes	
						PM < 2.5 micron	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes	
						PM < 10 micron	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes	
	TREA 252	Null	Tertiary Crusher L19 Cartridge Filter	Donaldson Torit (DFT 3-24)	6/11/2024	Particulate Matter	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes	
						PM < 2.5 micron	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes	
						PM < 10 micron	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes	
	TREA 253	Null	Tertiary Crusher L20 Cartridge Filter	Donaldson Torit (DFT 3-24)	TBD	Particulate Matter	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes	
						PM < 2.5 micron	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes	
						PM < 10 micron	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes	
	TREA 254	Null	Tertiary Crusher L22 Cartridge Filter	Donaldson Torit (DFT 3-24)	TBD	Particulate Matter	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes	

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018-Fabric Filter - Low Temp, T<180 Degrees F	TREA 254	Null	Tertiary Crusher L22 Cartridge Filter	Donaldson Torit (DFT 3-24)	TBD	PM < 2.5 micron	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes
						PM < 10 micron	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes
	TREA 255	Null	Tertiary Crusher L23 Cartridge Filter	Donaldson Torit (DFT 3-24)	TBD	Particulate Matter	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes
						PM < 2.5 micron	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes
						PM < 10 micron	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes
	TREA 256	Null	Tertiary Crusher L28 Cartridge Filter	Donaldson Torit (DFT 3-24)	TBD	Particulate Matter	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes
						PM < 2.5 micron	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes
						PM < 10 micron	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes
	TREA 257	Null	Tertiary Crusher L24 Cartridge Filter	Donaldson Torit (DFT 3-24)	TBD	Particulate Matter	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes
						PM < 2.5 micron	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes
						PM < 10 micron	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes
	TREA 258	Null	Tertiary Crusher L25 Cartridge Filter	Donaldson Torit (DFT 3-24)	6/11/2024	Particulate Matter	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes
						PM < 2.5 micron	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes
						PM < 10 micron	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes
	TREA 259	Null	Tertiary Crusher L26 Cartridge Filter	Donaldson Torit (DFT 3-24)	TBD	Particulate Matter	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes
						PM < 2.5 micron	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes
						PM < 10 micron	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes
	TREA 260	Null	Tertiary Crusher L27 Cartridge Filter	Donaldson Torit (DFT 3-24)	TBD	Particulate Matter	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes
						PM < 2.5 micron	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes
						PM < 10 micron	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes
	TREA 261	Null	Conveyor Transfer 009-020 Cartridge Filter	Donaldson Torit (DFT 3-24)	TBD	Particulate Matter	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes
						PM < 2.5 micron	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes
						PM < 10 micron	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes
	TREA 262	Null	Conveyor Transfer 003-004 Cartridge Filter	Donaldson Torit (DFT 3-24)	TBD	Particulate Matter	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes
						PM < 2.5 micron	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes

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018-Fabric Filter - Low Temp, T<180 Degrees F	TREA 262	Null	Conveyor Transfer 003-004 Cartridge Filter	Donaldson Torit (DFT 3-24)	TBD	PM < 10 micron	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes	
	TREA 264	Null	Conveyor Transfer 003 Cartridge Filter	Donaldson Torit (DFT 3-24)	TBD	Particulate Matter	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes	
						PM < 2.5 micron	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes	
						PM < 10 micron	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes	
	TREA 265	Null	Conveyor Transfer 001-070 Bin Cartridge Filter	Donaldson Torit (DFT 3-24)	TBD	Particulate Matter	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes	
						PM < 2.5 micron	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes	
						PM < 10 micron	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes	
	TREA 266	Null	Step I Basement Belts Cartridge Filter	Donaldson Torit (DFT 3-24))	TBD	Particulate Matter	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes	
						PM < 2.5 micron	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes	
						PM < 10 micron	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes	
	TREA 267	Null	Secondary Crusher L5 Cartridge Filter	Donaldson Torit (DFT 3-24)	11/21/2024	Particulate Matter	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes	
						PM < 2.5 micron	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes	
						PM < 10 micron	100	99	No	Null	Mfr/ Vendor data	Null	0.5	8	Yes	
	TREA 269	Null	Step III Tertiary Storage 006-080 Bins Cartridge Filter	Donaldson Torit)	TBD	Particulate Matter	100	99	No	Null	Mfr/ Vendor data	Null	Null	Null	Null	
						PM < 2.5 micron	100	99	No	Null	Mfr/ Vendor data	Null	Null	Null	Null	
						PM < 10 micron	100	99	No	Null	Mfr/ Vendor data	Null	Null	Null	Null	

SI Id	Sequence	Requirement
TFAC 2	1240	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)]
TFAC 2	1245	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]
TFAC 2	1260	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)]
TFAC 2	1280	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)]
TFAC 2	1290	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)]
TFAC 2	1380	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]

SI Id	Sequence	Requirement
TFAC 2	1390	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)]
TFAC 2	1400	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)]
TFAC 2	1410	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]
TFAC 2	1420	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]
TFAC 2	1430	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]
TFAC 2	1440	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)]
TFAC 2	1450	The Permittee shall comply with the General Conditions listed in Minn. R. 7007.0800, subp. 16. [Minn. R. 7007.0800, subp. 16]
TFAC 2	1460	Performance Testing: Conduct all performance tests in accordance with Minn. R. ch. 7017 unless otherwise noted in this permit. [Minn. R. ch. 7017]
TFAC 2	1470	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]
TFAC 2	1480	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]
TFAC 2	1490	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)]
TFAC 2	1500	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)]

SI Id	Sequence	Requirement
TFAC 2	1510	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)]
TFAC 2	1520	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)]
TFAC 2	1530	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]
TFAC 2	1540	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]
TFAC 2	1550	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]
TFAC 2	1560	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]

SI Id	Sequence	Requirement
TFAC 2	1570	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: - The name and ID number of the Facility, and the name and telephone number of the Facility contact person. - 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. - 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]
TFAC 2	1610	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]
TFAC 2	1620	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]
TFAC 2	1630	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]
TFAC 2	1640	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: - the cause of the deviation; - the exact dates of the period of the deviation, if the deviation has been corrected; - whether or not the deviation has been corrected; - the anticipated time by which the deviation is expected to be corrected, if not yet corrected; and - steps taken or planned to reduce, eliminate, and prevent reoccurrence of the deviation. [Minn. R. 7019.1000, subp. 1]
TFAC 2	1650	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)]
TFAC 2	1660	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)]

SI Id	Sequence	Requirement
TFAC 2	1670	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]
TFAC 2	1680	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)]
TFAC 2	1690	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)]
TFAC 2	1700	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)]
TFAC 2	1703	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)]
TFAC 2	1710	The Permittee shall submit an application for permit reissuance : Due 180 calendar days before Permit Expiration Date. [Minn. R. 7007.0400, subp. 2]
TFAC 2	1730	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]
TFAC 2	1740	Emission Fees: due 30 days after receipt of an MPCA bill. [Minn. R. 7002.0005-7002.0085]
TFAC 2	1750	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]
TFAC 2	1770	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)]
TFAC 2	3340	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]
TFAC 2	4000	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)]

SI Id	Sequence	Requirement
TFAC 2	4001	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)]
TFAC 2	4002	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)]
TFAC 2	4003	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)]
TFAC 2	4004	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)]
TFAC 2	10000	NAAQS Compliance Demonstration: The Permittee must submit a Plan for demonstrating compliance with the 1-hr SO₂, 1-hour NO₂, annual NO₂, 24-hour PM₁₀, 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 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)]

SI Id	Sequence	Requirement
COMG 37	3	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)]
COMG 37	5	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)]
COMG 37	6	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)]
COMG 37	7	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]
COMG 37	8	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)]
COMG 37	9	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)]
COMG 37	10	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)]
COMG 37	11	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)]
COMG 37	12	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)]
COMG 37	13	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)]
COMG 37	14	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]
COMG 37	15	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)]
COMG 37	16	The Permittee must comply with all applicable recordkeeping requirements in 40 CFR 52.1235(d). [40 CFR 52.1235(d)]
COMG 37	17	The Permittee must comply with all applicable recordkeeping requirements in 40 CFR 52.1235(e). [40 CFR 52.1235(e)]
COMG 38	10	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)]
COMG 38	11	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)]

SI Id	Sequence	Requirement
COMG 38	12	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]
COMG 38	13	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]
COMG 38	14	VOC: Monthly Calculation. The Permittee must calculate COMG 38 VOC emissions using the following equation: 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]
COMG 38	15	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]
COMG 38	16	CO: Monthly Calculation. The Permittee must calculate COMG 38 CO emissions using the following equation: 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. 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]
COMG 38	17	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	14130	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]

SI Id	Sequence	Requirement
COMG 39	14140	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]
		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);
COMG 39	15000	

SI Id	Sequence	Requirement
		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	14260	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]

SI Id	Sequence	Requirement
COMG 40	14270	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(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]
		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);
COMG 40	15000	

SI Id	Sequence	Requirement
		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 41	14350	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]

SI Id	Sequence	Requirement
COMG 41	15000	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]

SI Id	Sequence	Requirement
COMG 42	14150	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]
COMG 42	14170	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)]
COMG 42	14180	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	14150	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.

SI Id	Sequence	Requirement
		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]
COMG 45	14170	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)]
COMG 45	14180	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	14150	Filterable Particulate Matter: The Permittee must conduct a performance test due 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 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

SI Id	Sequence	Requirement
		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]
COMG 46	14170	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)]
COMG 46	14180	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	14150	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 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

SI Id	Sequence	Requirement
		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]
COMG 47	14170	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)]
COMG 47	14180	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	14150	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

SI Id	Sequence	Requirement
		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]
COMG 48	14170	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)]
COMG 48	14180	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	14150	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.

SI Id	Sequence	Requirement
		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]
COMG 49	14170	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)]
COMG 49	14180	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	14150	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

SI Id	Sequence	Requirement
		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]
COMG 50	14170	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)]
COMG 50	14180	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	14150	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

SI Id	Sequence	Requirement
		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]
COMG 51	14170	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)]
COMG 51	14180	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	14150	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

SI Id	Sequence	Requirement
		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]
COMG 52	14170	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)]
COMG 52	14180	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	14150	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 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]

SI Id	Sequence	Requirement
COMG 53	14170	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)]
COMG 53	14180	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	14150	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 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]
COMG 54	14170	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)]
COMG 54	14180	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]

SI Id	Sequence	Requirement
COMG 55	14150	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. 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]
COMG 55	14170	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)]
COMG 55	14180	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	14150	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.

SI Id	Sequence	Requirement
		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]
COMG 56	14170	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)]
COMG 56	14180	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	14150	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]

SI Id	Sequence	Requirement
COMG 57	14170	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)]
COMG 57	14180	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 58	14150	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]
COMG 58	14170	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)]
COMG 58	14180	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]

SI Id	Sequence	Requirement
COMG 59	14150	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 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]
COMG 59	14170	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)]
COMG 59	14180	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	14150	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 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.

SI Id	Sequence	Requirement
		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]
COMG 60	14170	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)]
COMG 60	14180	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	14150	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

SI Id	Sequence	Requirement
		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]
COMG 61	14170	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)]
COMG 61	14180	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	14150	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.

SI Id	Sequence	Requirement
		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]
COMG 62	14170	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)]
COMG 62	14180	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	14150	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

SI Id	Sequence	Requirement
		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]
COMG 63	14170	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)]
COMG 63	14180	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	14150	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.

SI Id	Sequence	Requirement
		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]
COMG 64	14170	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)]
COMG 64	14180	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	14150	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

SI Id	Sequence	Requirement
		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]
COMG 65	14170	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)]
COMG 65	14180	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	14150	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]

SI Id	Sequence	Requirement
COMG 66	14170	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)]
COMG 66	14180	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	14150	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. 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]
COMG 67	14170	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)]
COMG 67	14180	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]

SI Id	Sequence	Requirement
COMG 68	14150	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. 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]
COMG 68	14170	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)]
COMG 68	14180	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	14280	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

SI Id	Sequence	Requirement
		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]
COMG 69	14300	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)]
COMG 69	14310	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	19830	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]

SI Id	Sequence	Requirement
COMG 70	14280	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. 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]
COMG 70	14300	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)]
COMG 70	14310	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 70	19830	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]

SI Id	Sequence	Requirement
COMG 71	14280	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: 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]
COMG 71	14300	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)]
COMG 71	14310	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]

SI Id	Sequence	Requirement
COMG 71	19830	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 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	14280	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]
COMG 72	14300	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)]

SI Id	Sequence	Requirement
COMG 72	14310	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 72	19830	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. 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	2510	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]
COMG 73	2511	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]
COMG 73	2512	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]
COMG 73	2520	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]
COMG 73	2530	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]

SI Id	Sequence	Requirement
COMG 73	2540	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]
COMG 73	2550	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]
COMG 73	2560	Relative Accuracy Test Audit (RATA) Notification: due 30 days before CEMS Relative Accuracy Test Audit (RATA). [Minn. R. 7017.1180, subp. 2]
COMG 73	2570	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 73	2580	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]
COMG 73	2645	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	2510	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]
COMG 74	2511	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]
COMG 74	2512	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]
COMG 74	2520	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]

SI Id	Sequence	Requirement
COMG 74	2530	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]
COMG 74	2540	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]
COMG 74	2550	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]
COMG 74	2560	Relative Accuracy Test Audit (RATA) Notification: due 30 days before CEMS Relative Accuracy Test Audit (RATA). [Minn. R. 7017.1180, subp. 2]
COMG 74	2570	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 74	2580	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]
COMG 74	2645	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	2510	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]
COMG 75	2511	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]
COMG 75	2512	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]

SI Id	Sequence	Requirement
COMG 75	2520	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]
COMG 75	2530	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]
COMG 75	2540	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]
COMG 75	2550	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]
COMG 75	2560	Relative Accuracy Test Audit (RATA) Notification: due 30 days before CEMS Relative Accuracy Test Audit (RATA). [Minn. R. 7017.1180, subp. 2]
COMG 75	2570	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	2580	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]
COMG 75	2645	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 76	2510	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]
COMG 76	2511	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]

SI Id	Sequence	Requirement
COMG 76	2512	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]
COMG 76	2520	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]
COMG 76	2530	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]
COMG 76	2540	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]
COMG 76	2550	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]
COMG 76	2560	Relative Accuracy Test Audit (RATA) Notification: due 30 days before CEMS Relative Accuracy Test Audit (RATA). [Minn. R. 7017.1180, subp. 2]
COMG 76	2570	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	2580	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]
COMG 76	2645	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	2510	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]

SI Id	Sequence	Requirement
COMG 77	2511	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]
COMG 77	2512	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]
COMG 77	2520	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]
COMG 77	2530	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]
COMG 77	2540	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]
COMG 77	2550	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]
COMG 77	2560	Relative Accuracy Test Audit (RATA) Notification: due 30 days before CEMS Relative Accuracy Test Audit (RATA). [Minn. R. 7017.1180, subp. 2]
COMG 77	2570	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	2580	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]
COMG 77	2645	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]

SI Id	Sequence	Requirement
COMG 78	14150	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 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]
COMG 78	14170	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)]
COMG 78	14180	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 78	19830	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]

SI Id	Sequence	Requirement
COMG 79	21295	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 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	21295	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	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]
EQUI 3	8	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]
EQUI 3	9	Fluorides <= 1.62 pounds per hour 3-hour average. [Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
EQUI 3	11	Carbon Monoxide <= 74.0 pounds per hour 3-hour average. [Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
EQUI 3	16	Volatile Organic Compounds <= 54.3 pounds per hour 3-hour average. [Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
EQUI 3	3450	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)]
EQUI 3	3455	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]
EQUI 3	3480	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to 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)]

SI Id	Sequence	Requirement
EQUI 3	3517	The Permittee shall keep records of fuel purchases showing fuel types. [Minn. R. 7007.0800, subp. 5]
EQUI 3	3550	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]
EQUI 3	3555	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 $\pm 5\%$ 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]
EQUI 3	3560	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]
EQUI 3	3565	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]
EQUI 3	12250	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]
EQUI 3	14200	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]
EQUI 3	14201	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]

SI Id	Sequence	Requirement
EQUI 3	14202	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]
		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);

SI Id	Sequence	Requirement
		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(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.
EQUI 3	14210	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

SI Id	Sequence	Requirement
		- 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(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]
EQUI 3	14211	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);

SI Id	Sequence	Requirement
		- 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]

SI Id	Sequence	Requirement
		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(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]
EQUI 3	14212	
		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);
EQUI 3	14213	

SI Id	Sequence	Requirement
		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]
EQUI 3	14220	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. 3(A), Minn. R. 7017.2020, subp. 1]
EQUI 3	14230	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)]
EQUI 3	14240	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]
EQUI 3	14250	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]

SI Id	Sequence	Requirement
EQUI 3	20020	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]
EQUI 3	20030	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]
EQUI 3	20040	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. 7007.0800, subp. 2(B), Minn. R. 7017.2020, subp. 1]

SI Id	Sequence	Requirement
EQUI 3	20050	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]
EQUI 3	20080	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]
EQUI 3	21290	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) 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]
EQUI 3	21291	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)]
EQUI 3	21292	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]

SI Id	Sequence	Requirement
EQUI 3	21293	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 3	25100	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]

SI Id	Sequence	Requirement
EQUI 3	25200	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 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]

SI Id	Sequence	Requirement
EQUI 3	25300	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 5	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)]
EQUI 5	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 5	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 6	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 6	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 7	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 7	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 8	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 8	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]

SI Id	Sequence	Requirement
EQUI 9	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 9	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 10	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 10	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 11	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)]
EQUI 11	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 11	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 12	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 12	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 13	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 13	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 14	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 14	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 15	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 15	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 19	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 19	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 20	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 20	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 21	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]

SI Id	Sequence	Requirement
EQUI 21	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 22	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 22	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 23	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 23	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 24	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 24	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	1	The Permittee shall vent emissions from EQUI 25 to control equipment meeting the requirements of TREA 192 whenever EQUI 25 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
EQUI 25	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 25	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 26	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 26	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 27	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 27	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 28	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 28	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 29	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 29	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 30	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]

SI Id	Sequence	Requirement
EQUI 30	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 31	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)]
EQUI 31	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 31	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 32	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 32	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 33	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 33	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 34	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 34	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 35	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 35	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 36	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 36	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 37	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 37	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]

SI Id	Sequence	Requirement
EQUI 37	14290	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]
EQUI 37	14300	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)]
EQUI 37	14310	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]
EQUI 37	19650	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 37	19830	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	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 41	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 41	5000	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)]
EQUI 41	5001	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]

SI Id	Sequence	Requirement
EQUI 41	5002	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 41	20040	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. 7017.2020, subp. 1]
EQUI 41	20045	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 42	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)]
EQUI 42	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 42	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	5	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)]
EQUI 46	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	4360	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]

SI Id	Sequence	Requirement
EQUI 46	4370	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]
EQUI 46	4600	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 47	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)]
EQUI 47	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 47	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 48	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]

SI Id	Sequence	Requirement
EQUI 48	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	14290	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]
EQUI 48	14300	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)]
EQUI 48	14310	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]
EQUI 48	19830	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 51	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)]
EQUI 51	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 51	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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]

SI Id	Sequence	Requirement
EQUI 52	3	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]
EQUI 52	4	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]
EQUI 52	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 52	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	19880	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]
EQUI 52	19900	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. 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]

SI Id	Sequence	Requirement
EQUI 53	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]
EQUI 53	3	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]
EQUI 53	4	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]
EQUI 53	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 53	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	19880	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]

SI Id	Sequence	Requirement
EQUI 53	19900	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.
		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.
EQUI 54	3680	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]
		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)]
		Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
		Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
		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)]
EQUI 55	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
		Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
		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)]
		Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
		Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
		Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
		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)]
		Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
		Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
		Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
		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)]
		Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
		Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
		Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
		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)]
		Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
		Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
		Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
		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)]
		Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
		Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]

SI Id	Sequence	Requirement
EQUI 59	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 59	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 60	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 60	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 61	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 61	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 62	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 62	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 63	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 63	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 64	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 64	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 65	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 65	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 66	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 66	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 67	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 67	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 68	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]

SI Id	Sequence	Requirement
EQUI 68	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 72	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 72	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 77	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 77	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 78	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 78	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 79	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 79	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 81	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 81	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 82	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 82	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 87	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 87	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 88	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 88	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 89	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]

SI Id	Sequence	Requirement
EQUI 89	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 90	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 90	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 91	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 91	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 92	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 92	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 93	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 93	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 94	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 94	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 95	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 95	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 96	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 96	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 97	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 97	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]

SI Id	Sequence	Requirement
EQUI 97	14290	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]
EQUI 97	14300	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)]
EQUI 97	14310	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]
EQUI 97	19830	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.
		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 98	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)]
EQUI 98	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 98	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 99	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 99	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]

SI Id	Sequence	Requirement
EQUI 100	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)]
EQUI 100	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 100	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 101	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 101	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 102	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 102	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 103	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 103	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 104	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 104	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 108	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 109	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 110	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 111	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 112	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 113	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]

SI Id	Sequence	Requirement
EQUI 114	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 115	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 116	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 117	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 117	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 118	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 119	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 119	3710	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. Because it has been shown that the facility does not cause a violation of ambient air quality standards, and is located outside the Mpls/St. Paul air quality control region and the city of Duluth, and is located at least 1/4 mile from any residence or public roadway, and the industrial process equipment is controlled by control equipment which has a collection efficiency of 85% by weight, this industrial process equipment is considered to be in compliance with this requirement. [Minn. R. 7011.0715, subps. 1(A) and 3]
EQUI 119	19650	The Permittee shall vent emissions from EQUI 119 to control equipment meeting the requirements of TREA 225 whenever EQUI 119 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
EQUI 120	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 120	3710	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. Because it has been shown that the facility does not cause a violation of ambient air quality standards, and is located outside the Mpls/St. Paul air quality control region and the city of Duluth, and is located at least 1/4 mile from any residence or public roadway, and the industrial process equipment is controlled by control equipment which has a collection efficiency of 85% by weight, this industrial process equipment is considered to be in compliance with this requirement. [Minn. R. 7011.0715, subps. 1(A) and 3]
EQUI 120	19650	The Permittee shall vent emissions from EQUI 120 to control equipment meeting the requirements of TREA 225 whenever EQUI 37 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
EQUI 122	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)]
EQUI 122	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 122	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 123	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 123	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]

SI Id	Sequence	Requirement
EQUI 124	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 125	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 126	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 127	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 136	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 136	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 137	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 137	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 138	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 138	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 139	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 139	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 140	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 140	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 141	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 141	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 142	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]

SI Id	Sequence	Requirement
EQUI 142	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 143	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 143	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 144	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 144	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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]
EQUI 146	6	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]
EQUI 146	7	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]
EQUI 146	8	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]
EQUI 146	13	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]
EQUI 146	20	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)]
EQUI 146	3450	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]
EQUI 146	3455	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to 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)]
EQUI 146	3480	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]
EQUI 146	3517	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]
EQUI 146	3550	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]
EQUI 146	3555	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]

SI Id	Sequence	Requirement
EQUI 146	3560	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]
EQUI 146	3565	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]
EQUI 146	14200	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]
EQUI 146	14201	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]
EQUI 146	14202	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]

SI Id	Sequence	Requirement
EQUI 146		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);
	14203	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]

SI Id	Sequence	Requirement
EQUI 146		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);
	14210	- install, operate, and maintain a continuous parameter monitoring system and monitor the applicable operating
		- 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]
EQUI 146	14211	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);

SI Id	Sequence	Requirement
		- 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]

SI Id	Sequence	Requirement
		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 636.9641(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]
EQUI 146	14212	
		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);
EQUI 146	14213	

SI Id	Sequence	Requirement
		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); 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);

SI Id	Sequence	Requirement
		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]
EQUI 146	14216	Bypass Event: During any period in which a bypass stack is open, the Permittee is prohibited from feeding greenballs/pellets to EQUI 146 and fuel use is limited to natural gas. [Minn. R. 7007.0800, subp. 2(A)]
EQUI 146	14217	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]
EQUI 146	14218	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]

SI Id	Sequence	Requirement
EQUI 146	14220	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]
EQUI 146	14230	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)]
EQUI 146	14240	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]
EQUI 146	14250	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]
EQUI 146	20020	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 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]

SI Id	Sequence	Requirement
EQUI 146	20030	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]
EQUI 146	20040	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]
EQUI 146	20050	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. 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]

SI Id	Sequence	Requirement
EQUI 146	20080	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]
EQUI 146	21290	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]
EQUI 146	21295	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)]

SI Id	Sequence	Requirement
EQUI 146	25100	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]

SI Id	Sequence	Requirement
EQUI 146	25200	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 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]

SI Id	Sequence	Requirement
EQUI 146	25300	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 147	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)]
EQUI 147	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 147	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 148	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 149	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 149	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 150	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 150	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 151	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]

SI Id	Sequence	Requirement
EQUI 151	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 152	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 152	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 153	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 153	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 154	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 154	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 155	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 155	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 156	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 156	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	1	The Permittee shall vent emissions from EQUI 157 to control equipment meeting the requirements of TREA 102 whenever EQUI 157 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
EQUI 157	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 157	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 158	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 158	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 159	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 159	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 164	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]

SI Id	Sequence	Requirement
EQUI 164	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 165	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 165	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 166	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 166	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 167	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)]
EQUI 167	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 167	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 168	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 168	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 169	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 169	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 170	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 170	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 171	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 171	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 172	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 172	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 173	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]

SI Id	Sequence	Requirement
EQUI 173	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 174	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 174	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 175	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 175	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 176	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 176	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 177	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 177	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	1	The Permittee shall vent emissions from EQUI 178 to control equipment meeting the requirements of TREA 147 whenever EQUI 178 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
EQUI 178	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 178	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	14290	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 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]

SI Id	Sequence	Requirement
EQUI 178	14300	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)]
EQUI 178	14310	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]
EQUI 178	19830	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	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]
EQUI 179	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]
EQUI 179	8	Fluorides <= 1.62 pounds per hour 3-hour average. [Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
EQUI 179	9	Carbon Monoxide <= 74.0 pounds per hour 3-hour average. [Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
EQUI 179	11	Volatile Organic Compounds <= 54.3 pounds per hour 3-hour average. [Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
EQUI 179	17	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)]
EQUI 179	3450	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]
EQUI 179	3455	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to 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)]
EQUI 179	3480	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]
EQUI 179	3517	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]

SI Id	Sequence	Requirement
EQUI 179	3550	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]
EQUI 179	3555	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]
EQUI 179	3560	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]
EQUI 179	3565	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]
EQUI 179	14200	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]
EQUI 179	14201	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]

SI Id	Sequence	Requirement
EQUI 179	14202	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 63.6(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]
EQUI 179	14203	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);

SI Id	Sequence	Requirement
		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,
EQUI 179	14210	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);

SI Id	Sequence	Requirement
		- 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]
EQUI 179	14211	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);

SI Id	Sequence	Requirement
		- 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]
EQUI 179	14212	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]

SI Id	Sequence	Requirement
EQUI 179	14213	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); 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);

SI Id	Sequence	Requirement
		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);

SI Id	Sequence	Requirement
		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]
EQUI 179	14220	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 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]
EQUI 179	14230	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)]

SI Id	Sequence	Requirement
EQUI 179	14240	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]
EQUI 179	14250	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]
EQUI 179	20020	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]
EQUI 179	20030	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 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]
EQUI 179	20040	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]

SI Id	Sequence	Requirement
EQUI 179	20050	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]
EQUI 179	20080	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]
EQUI 179	21290	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]
EQUI 179	21291	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)]
EQUI 179	21292	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]

SI Id	Sequence	Requirement
EQUI 179	21293	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 179	25100	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]

SI Id	Sequence	Requirement
EQUI 179	25200	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 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]

SI Id	Sequence	Requirement
		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 179	25300	
EQUI 180	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 180	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 181	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 182	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 183	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 184	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 185	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]

SI Id	Sequence	Requirement
EQUI 186	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 187	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 188	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 189	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 190	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 191	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 191	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	3610	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]
EQUI 196	3620	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]
EQUI 196	3630	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]
EQUI 196	3632	Fuel type: Natural gas, propane, or No. 2 fuel oil only. [Minn. R. 7005.0100, subp. 35a]
EQUI 196	3633	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)]
EQUI 196	3637	The Permittee shall keep records of fuel purchases showing fuel types. [Minn. R. 7007.0800, subp. 5]

SI Id	Sequence	Requirement
EQUI 196	12250	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]
EQUI 196	21090	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); 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);

SI Id	Sequence	Requirement
		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 196	21100	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	3610	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]
EQUI 197	3620	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]
EQUI 197	3630	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]
EQUI 197	3632	Fuel type: Natural gas, propane or No. 2 fuel oil only. [Minn. R. 7005.0100, subp. 35a]
EQUI 197	3633	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)]
EQUI 197	3637	The Permittee shall keep records of fuel purchases showing fuel types. [Minn. R. 7007.0800, subp. 5]

SI Id	Sequence	Requirement
EQUI 197	12250	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]
EQUI 197	21090	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);

SI Id	Sequence	Requirement
		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 197	21100	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	3610	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]
EQUI 198	3620	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]
EQUI 198	3630	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]
EQUI 198	3632	Fuel type: Natural gas, propane, or No. 2 fuel oil only. [Minn. R. 7005.0100, subp. 35a]
EQUI 198	3637	The Permittee shall keep records of fuel purchases showing fuel types. [Minn. R. 7007.0800, subp. 5]

SI Id	Sequence	Requirement
EQUI 198	12250	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 63.1. 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]
EQUI 198	21090	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);

SI Id	Sequence	Requirement
		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	21100	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	3570	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]
EQUI 199	3580	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]
EQUI 199	3590	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]
EQUI 199	3632	Fuel type: Natural gas, propane, or No. 2 fuel oil only. [Minn. R. 7005.0100, subp. 35a]
EQUI 199	3633	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)]
EQUI 199	3637	The Permittee shall keep records of fuel purchases showing fuel types. [Minn. R. 7007.0800, subp. 5]

SI Id	Sequence	Requirement
EQUI 199	12250	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]
EQUI 199	21090	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);

SI Id	Sequence	Requirement
		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 199	21100	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 200	3570	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]
EQUI 200	3580	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]
EQUI 200	3590	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]
EQUI 200	3632	Fuel type: Natural gas, propane, or No. 2 fuel oil only. [Minn. R. 7005.0100, subp. 35a]
EQUI 200	3633	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)]
EQUI 200	3637	The Permittee shall keep records of fuel purchases showing fuel types. [Minn. R. 7007.0800, subp. 5]

SI Id	Sequence	Requirement
EQUI 200	12250	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]
EQUI 200	21090	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);

SI Id	Sequence	Requirement
		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 200	21100	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 200	21100	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 201	3570	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]
EQUI 201	3580	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]
EQUI 201	3590	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]
EQUI 201	3632	Fuel type: Natural gas, propane, or No. 2 fuel oil only. [Minn. R. 7005.0100, subp. 35a]
EQUI 201	3633	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)]
EQUI 201	3637	The Permittee shall keep records of fuel purchases showing fuel types. [Minn. R. 7007.0800, subp. 5]

SI Id	Sequence	Requirement
EQUI 201	12250	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]
EQUI 201	21090	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);

SI Id	Sequence	Requirement
		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	21100	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 201	21100	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	3570	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]
EQUI 202	3580	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]
EQUI 202	3590	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]
EQUI 202	3632	Fuel type: Natural gas, propane, or No. 2 fuel oil only. [Minn. R. 7005.0100, subp. 35a]
EQUI 202	3633	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)]
EQUI 202	3637	The Permittee shall keep records of fuel purchases showing fuel types. [Minn. R. 7007.0800, subp. 5]

SI Id	Sequence	Requirement
EQUI 202	12250	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]
EQUI 202	21090	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;

SI Id	Sequence	Requirement
		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 202	21100	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 202	21100	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 206	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)]
EQUI 206	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 206	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 207	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]

[illegible]

[illegible]

SI Id	Sequence	Requirement
EQUI 225	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 226	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 226	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 227	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 227	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 228	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 228	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 229	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 229	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 230	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 230	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 231	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 231	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 232	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 232	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 233	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 233	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 234	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]

SI Id	Sequence	Requirement
EQUI 234	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 235	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 235	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 236	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 236	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 237	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 237	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 238	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 238	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 239	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 239	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 240	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 240	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 241	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 241	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 242	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 242	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 243	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]

SI Id	Sequence	Requirement
EQUI 243	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 244	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 244	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 245	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 245	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 246	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 246	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 247	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 247	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 248	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 248	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 249	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 249	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 250	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 250	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 251	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 251	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 252	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]

SI Id	Sequence	Requirement
EQUI 253	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)]
EQUI 253	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 253	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 254	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 254	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	3570	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]
EQUI 255	3580	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]
EQUI 255	3632	Fuel type: Natural gas only, by design. [Minn. R. 7005.0100, subp. 35a]
EQUI 255	3637	The Permittee shall keep records of fuel purchases showing fuel types. [Minn. R. 7007.0800, subp. 5]
EQUI 256	2200	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]
EQUI 256	2220	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]
EQUI 256	2620	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]
EQUI 256	2630	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	2200	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]
EQUI 257	2220	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]
EQUI 257	2620	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]
EQUI 257	2630	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	2200	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]
EQUI 258	2220	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]

SI Id	Sequence	Requirement
EQUI 258	2620	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]
EQUI 258	2630	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	2200	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]
EQUI 259	2220	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]
EQUI 259	2620	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]
EQUI 259	2630	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	2200	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]
EQUI 260	2220	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]
EQUI 260	2620	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]
EQUI 260	2630	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	2200	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]
EQUI 261	2220	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]
EQUI 261	2620	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]

SI Id	Sequence	Requirement
EQUI 261	2630	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	2200	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]
EQUI 262	2220	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]
EQUI 262	2620	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]
EQUI 262	2630	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 263	2200	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]
EQUI 263	2220	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]
EQUI 263	2620	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]
EQUI 263	2630	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	2200	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]
EQUI 264	2220	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]
EQUI 264	2620	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]
EQUI 264	2630	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	2200	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]
EQUI 265	2220	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]

SI Id	Sequence	Requirement
EQUI 265	2620	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]
EQUI 265	2630	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 266	2	The Permittee shall vent emissions from EQUI 266 to control equipment meeting the requirements of TREA 171 whenever EQUI 266 operates. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000]
EQUI 266	3680	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]
EQUI 266	3690	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)]
EQUI 266	3710	Opacity $\leq$ 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 266	6450	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]
EQUI 266	19650	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	3680	Opacity $\leq$ 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 267	3690	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)]
EQUI 267	5000	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)]
EQUI 267	5001	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]
EQUI 267	5002	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]

SI Id	Sequence	Requirement
EQUI 267	20040	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]
EQUI 267	20045	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	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 268	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 268	5000	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. R. 7007.0800, subp. 2(A)]
EQUI 268	5001	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]
EQUI 268	5002	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]

SI Id	Sequence	Requirement
EQUI 268	20040	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. 7017.2020, subp. 1]
EQUI 268	20045	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 269	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)]
EQUI 269	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 269	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 270	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 272	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 272	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	5	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)]
EQUI 273	4360	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]

SI Id	Sequence	Requirement
EQUI 273	4370	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]
		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	3520	Opacity <= 20 percent opacity once operating temperatures have been attained. [Minn. R. 7011.2300, subp. 1]
EQUI 274	3535	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)]
EQUI 274	3540	Fuel type: Diesel only, by design. [Minn. R. 7005.0100, subp. 35a]
EQUI 274	3550	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]
EQUI 274	3560	The Permittee shall keep records of fuel type and usage on a monthly basis. [Minn. R. 7007.0800, subp. 5]

SI Id	Sequence	Requirement
EQUI 274	3565	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	10	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]
EQUI 275	3680	Opacity <= 7 percent opacity. [40 CFR 60.672(a), Minn. R. 7011.3350]
EQUI 275	3681	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]
EQUI 275	19650	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]

SI Id	Sequence	Requirement
EQUI 275	19651	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]
EQUI 278	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)]
EQUI 278	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 278	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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]
EQUI 279	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]
EQUI 279	3	Fluorides <= 1.62 pounds per hour 3-hour average. [Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
EQUI 279	8	Carbon Monoxide <= 98.6 pounds per hour 3-hour average. [Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
EQUI 279	9	Volatile Organic Compounds <= 74.0 pounds per hour 3-hour average. [Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
EQUI 279	11	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]
EQUI 279	3517	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)]
EQUI 279	3517	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to 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)]

SI Id	Sequence	Requirement
EQUI 279	3550	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]
EQUI 279	3555	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]
EQUI 279	3560	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 $\pm 5\%$ 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]
EQUI 279	3565	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]
EQUI 279	3600	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]
EQUI 279	3610	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]
EQUI 279	3620	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]
EQUI 279	14200	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]

SI Id	Sequence	Requirement
EQUI 279	14201	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]
		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);

SI Id	Sequence	Requirement
		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]
EQUI 279	14203	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

SI Id	Sequence	Requirement
		- 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]
EQUI 279	14210	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);

SI Id	Sequence	Requirement
		- 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]

SI Id	Sequence	Requirement
		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 636.9641(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]
EQUI 279	14211	
		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);
EQUI 279	14212	

SI Id	Sequence	Requirement
		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);

SI Id	Sequence	Requirement
		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);

SI Id	Sequence	Requirement
		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]
EQUI 279	14213	Bypass Event: During any period in which a bypass stack is open, the Permittee is prohibited from feeding greenballs/pellets to EQUI 279 and fuel use is limited to natural gas. [Minn. R. 7007.0800, subp. 2(A)]
EQUI 279	14216	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]
EQUI 279	14218	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]

SI Id	Sequence	Requirement
EQUI 279	14220	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]
EQUI 279	14230	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)]
EQUI 279	14240	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]
EQUI 279	14250	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]
EQUI 279	20020	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]

SI Id	Sequence	Requirement
EQUI 279	20030	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]
EQUI 279	20040	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]
EQUI 279	20050	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]

SI Id	Sequence	Requirement
EQUI 279	20080	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]
		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]
EQUI 279	21290	

SI Id	Sequence	Requirement
EQUI 279	25100	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]

SI Id	Sequence	Requirement
EQUI 279	25200	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 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]

SI Id	Sequence	Requirement
EQUI 279	25300	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 280	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]
EQUI 280	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]
EQUI 280	8	Fluorides <= 1.62 pounds per hour 3-hour average. [Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
EQUI 280	9	Carbon Monoxide <= 98.6 pounds per hour 3-hour average. [Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
EQUI 280	11	Volatile Organic Compounds <= 74.0 pounds per hour 3-hour average. [Title I Condition: 40 CFR 52.21(j)(BACT) & Minn. R. 7007.3000]
EQUI 280	31	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]
EQUI 280	3517	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]
EQUI 280	3550	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]

SI Id	Sequence	Requirement
EQUI 280	3555	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]
EQUI 280	3560	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]
EQUI 280	3565	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)]
EQUI 280	3600	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]
EQUI 280	3610	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to 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)]
EQUI 280	3620	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]
EQUI 280	14200	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]
EQUI 280	14201	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]

SI Id	Sequence	Requirement
EQUI 280	14202	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]
EQUI 280	14203	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);

SI Id	Sequence	Requirement
		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]
EQUI 280	14210	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

SI Id	Sequence	Requirement
		- 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]
EQUI 280	14211	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);

SI Id	Sequence	Requirement
		- 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]

SI Id	Sequence	Requirement
		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 636.9641(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]
EQUI 280	14212	
		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);
EQUI 280	14213	

SI Id	Sequence	Requirement
		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); 40 CFR 63.9(k);

SI Id	Sequence	Requirement
		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),
EQUI 280	14216	Bypass Event: During any period in which a bypass stack is open, the Permittee is prohibited from feeding greenballs/pellets to EQUI 280 and fuel use is limited to natural gas. [Minn. R. 7007.0800, subp. 2(A)]
EQUI 280	14217	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]
EQUI 280	14218	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]

SI Id	Sequence	Requirement
EQUI 280	14220	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. 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]
EQUI 280	14230	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)]
EQUI 280	14240	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]
EQUI 280	14250	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]
EQUI 280	20020	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]

SI Id	Sequence	Requirement
EQUI 280	20030	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. 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]
EQUI 280	20040	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]
EQUI 280	20050	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]

SI Id	Sequence	Requirement
EQUI 280	20080	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]
	21290	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]

SI Id	Sequence	Requirement
EQUI 280	25100	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]

SI Id	Sequence	Requirement
EQUI 280	25200	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 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]

SI Id	Sequence	Requirement
EQUI 280	25300	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 281	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)]
EQUI 281	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 281	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	3450	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)]
EQUI 282	3460	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to 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)]
EQUI 282	3512	Fuel type: Natural gas only, by design. [Minn. R. 7005.0100, subp. 35a]
EQUI 282	3517	The Permittee shall keep records of fuel purchases showing fuel types. [Minn. R. 7007.0800, subp. 5]
EQUI 283	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)]
EQUI 283	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 283	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 284	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 284	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to 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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SI Id	Sequence	Requirement
EQUI 297	1	The Permittee shall vent emissions from EQUI 297 to control equipment meeting the requirements of TREA 66 whenever EQUI 297 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
EQUI 297	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 297	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 298	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 298	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 299	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 299	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 300	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 300	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 301	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 301	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 303	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 303	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 304	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)]
EQUI 304	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 304	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 305	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 305	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 309	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 309	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]

SI Id	Sequence	Requirement
EQUI 310	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)]
EQUI 310	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 310	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	3450	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)]
EQUI 311	3455	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]
EQUI 311	3460	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to 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)]
EQUI 311	3512	Fuel type: Natural gas and No. 2 fuel oil only, by design. [Minn. R. 7005.0100, subp. 35a]
EQUI 311	3517	The Permittee shall keep records of fuel purchases showing fuel types. [Minn. R. 7007.0800, subp. 5]
EQUI 312	3450	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)]
EQUI 312	3455	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]
EQUI 312	3460	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to 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)]
EQUI 312	3512	Fuel type: Natural gas and No. 2 Fuel Oil only, by design. [Minn. R. 7005.0100, subp. 35a]
EQUI 312	3517	The Permittee shall keep records of fuel purchases showing fuel types. [Minn. R. 7007.0800, subp. 5]
EQUI 312	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 313	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 313	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 314	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 314	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 315	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 315	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 316	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 316	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 317	3450	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)]

SI Id	Sequence	Requirement
EQUI 317	3455	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]
EQUI 317	3460	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to 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)]
EQUI 317	3512	Fuel type: Natural gas only, by design. [Minn. R. 7005.0100, subp. 35a]
EQUI 317	3517	The Permittee shall keep records of fuel purchases showing fuel types. [Minn. R. 7007.0800, subp. 5]
EQUI 318	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)]
EQUI 318	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 318	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 319	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 319	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 320	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 320	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 321	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 321	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	1	The Permittee shall vent emissions from EQUI 322 to control equipment meeting the requirements of TREA 210 whenever EQUI 322 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
EQUI 322	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 322	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 323	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 323	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 324	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 324	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 325	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 325	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]

SI Id	Sequence	Requirement
EQUI 326	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)]
EQUI 326	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 326	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 327	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 327	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 328	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)]
EQUI 328	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 328	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 329	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 329	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 330	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 330	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 331	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 331	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 332	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 332	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 333	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 333	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 335	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 335	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]

SI Id	Sequence	Requirement
EQUI 336	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)]
EQUI 336	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 336	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 337	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 337	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 338	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 338	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 339	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 339	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	1	The Permittee shall vent emissions from EQUI 340 to control equipment meeting the requirements of TREA 50 whenever EQUI 340 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
EQUI 340	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 340	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 341	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 341	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 342	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 342	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 343	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 343	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 345	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 345	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]

SI Id	Sequence	Requirement
EQUI 346	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)]
EQUI 346	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 346	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 347	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)]
EQUI 347	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 347	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 348	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 348	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 350	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	5000	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)]
EQUI 350	5001	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]
EQUI 350	5002	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 350	20040	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]

SI Id	Sequence	Requirement
EQUI 350	20045	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 351	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)]
EQUI 351	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 351	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	1	The Permittee shall vent emissions from EQUI 352 to control equipment meeting the requirements of TREA 175 whenever EQUI 352 operates. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
EQUI 352	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 352	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 353	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 353	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 354	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 354	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 355	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 355	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 356	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 356	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 357	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]

SI Id	Sequence	Requirement
EQUI 357	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 358	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)]
EQUI 358	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 358	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 359	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 359	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 360	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 360	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 361	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 361	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 362	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 362	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 363	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 363	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 364	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 364	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 365	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 365	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 366	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]

SI Id	Sequence	Requirement
EQUI 366	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 367	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 367	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 368	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 368	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	14290	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 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]
EQUI 368	14300	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)]
EQUI 368	14310	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]

SI Id	Sequence	Requirement
EQUI 368	19830	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	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 370	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	5000	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)]
EQUI 370	5001	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]
EQUI 370	5002	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 370	20040	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. 7017.2020, subp. 1]

SI Id	Sequence	Requirement
EQUI 370	20045	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 371	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)]
EQUI 371	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 371	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 372	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 372	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	3450	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)]
EQUI 373	3460	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to 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)]
EQUI 373	3512	Fuel type: Natural gas only, by design. [Minn. R. 7005.0100, subp. 35a]
EQUI 373	3517	The Permittee shall keep records of fuel purchases showing fuel types. [Minn. R. 7007.0800, subp. 5]
EQUI 374	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)]
EQUI 374	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 374	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	3680	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)]
EQUI 375	3690	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 375	3710	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	3450	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)]
EQUI 376	3455	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]
EQUI 376	3460	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to 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)]
EQUI 376	3512	Fuel type: Natural gas only, by design. [Minn. R. 7005.0100, subp. 35a]
EQUI 376	3517	The Permittee shall keep records of fuel purchases showing fuel types. [Minn. R. 7007.0800, subp. 5]

SI Id	Sequence	Requirement
EQUI 377	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)]
EQUI 377	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 377	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 378	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 378	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 379	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 379	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 380	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 380	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 381	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 381	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 382	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 382	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 383	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 383	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 384	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 384	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 385	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 385	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]

SI Id	Sequence	Requirement
EQUI 386	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)]
EQUI 386	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 386	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 387	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 387	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 388	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 388	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 389	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 389	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 390	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 390	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 392	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 392	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 393	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 393	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 394	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 394	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	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)]
EQUI 395	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]

SI Id	Sequence	Requirement
EQUI 395	3690	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)]
EQUI 671	3520	Opacity $\leq$ 20 percent opacity once operating temperatures have been attained. [Minn. R. 7011.2300, subp. 1]
EQUI 671	3535	Sulfur Dioxide $\leq$ 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)]
EQUI 671	3540	Fuel type: No. 2 fuel oil/diesel fuel meeting the requirements of 40 CFR Section 1090.305 only. [Minn. R. 7005.0100, subp. 35a]
EQUI 671	3550	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]
EQUI 671	3560	The Permittee shall keep records of fuel type and usage on a monthly basis. [Minn. R. 7007.0800, subp. 5]
EQUI 671	3565	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 671	4600	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]
EQUI 671	21020	The Permittee must limit emissions of NMHC+NOx $\leq$ 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]
EQUI 671	28030	The Permittee must limit emissions of Particulate Matter $\leq$ 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]
EQUI 671	28040	The Permittee must limit emissions of Carbon Monoxide $\leq$ 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]
EQUI 671	28050	The Permittee must limit emissions of Opacity $\leq$ 20 percent opacity during the acceleration mode. [40 CFR 60.4202(a)(2), 40 CFR 60.4205(b), Minn. R. 7011.2305]
EQUI 671	28060	The Permittee must limit emissions of Opacity $\leq$ 15 percent opacity during the lugging mode. [40 CFR 60.4202(a)(2), 40 CFR 60.4205(b), Minn. R. 7011.2305]
EQUI 671	28070	The Permittee must limit emissions of Opacity $\leq$ 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]
EQUI 671	28080	The Permittee must limit Sulfur Content of Fuel $\leq$ 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]

SI Id	Sequence	Requirement
EQUI 671	28160	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]
EQUI 671	35680	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	3520	Opacity <= 20 percent opacity once operating temperatures have been attained. [Minn. R. 7011.2300, subp. 1]

SI Id	Sequence	Requirement
EQUI 672	3535	Sulfur Dioxide $\leq$ 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)]
EQUI 672	3540	Fuel type: Diesel only, by design. [Minn. R. 7005.0100, subp. 35a]
EQUI 672	3550	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]
EQUI 672	3560	The Permittee shall keep records of fuel type and usage on a monthly basis. [Minn. R. 7007.0800, subp. 5]
EQUI 672	3565	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 672	19530	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 a 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]
EQUI 672	28160	The Permittee must limit Sulfur Content of Fuel $\leq$ 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]
EQUI 672	35500	The Permittee must limit emissions of NMHC+NOx $\leq$ 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]
EQUI 672	35510	The Permittee must limit emissions of Particulate Matter $\leq$ 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]
EQUI 672	35520	The Permittee must limit emissions of Carbon Monoxide $\leq$ 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]
EQUI 672	35530	The Permittee must limit emissions of Opacity $\leq$ 20 percent opacity during the acceleration mode. [40 CFR 60.4202(a)(2), 40 CFR 60.4205(b), Minn. R. 7011.2305]
EQUI 672	35540	The Permittee must limit emissions of Opacity $\leq$ 15 percent opacity during the lugging mode. [40 CFR 60.4202(a)(2), 40 CFR 60.4205(b), Minn. R. 7011.2305]
EQUI 672	35550	The Permittee must limit emissions of Opacity $\leq$ 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]

SI Id	Sequence	Requirement
EQUI 672	35680	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]
EQUI 672	35700	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 673	5	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]

SI Id	Sequence	Requirement
EQUI 673	4360	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]
		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]
EQUI 673	4370	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 674	4360	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]
EQUI 674	4360	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]

SI Id	Sequence	Requirement
EQUI 674	4370	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]
EQUI 674	4600	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 675	5	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]
EQUI 675	4360	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]

SI Id	Sequence	Requirement
EQUI 675	4370	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]
		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 676	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 676	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 678	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]

SI Id	Sequence	Requirement
EQUI 679	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 680	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 681	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 682	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 683	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 684	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	5000	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)]
EQUI 684	5001	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]
EQUI 684	5002	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	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 685	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. [Minn. R. 7011.0715, subp. 1(A)]
EQUI 685	5000	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)]
EQUI 685	5001	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]
EQUI 685	5002	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]

SI Id	Sequence	Requirement
EQUI 688	3520	Opacity <= 20 percent opacity once operating temperatures have been attained. [Minn. R. 7011.2300, subp. 1]
EQUI 688	3535	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)]
EQUI 688	3540	Fuel type: Diesel only, by design. [Minn. R. 7005.0100, subp. 35a]
EQUI 688	3550	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]
EQUI 688	3560	The Permittee shall keep records of fuel type and usage on a monthly basis. [Minn. R. 7007.0800, subp. 5]
EQUI 688	3565	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 688	27830	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);

SI Id	Sequence	Requirement
		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]
EQUI 688	35690	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);

SI Id	Sequence	Requirement
		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, Minn. R. 7019.0100]
EQUI 689	3520	Opacity <= 20 percent opacity once operating temperatures have been attained. [Minn. R. 7011.2300, subp. 1]
EQUI 689	3535	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)]
EQUI 689	3540	Fuel type: Diesel only, by design. [Minn. R. 7005.0100, subp. 35a]
EQUI 689	3550	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]
EQUI 689	3560	The Permittee shall keep records of fuel type and usage on a monthly basis. [Minn. R. 7007.0800, subp. 5]
EQUI 689	3565	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 689	19510	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	3520	Opacity <= 20 percent opacity once operating temperatures have been attained. [Minn. R. 7011.2300, subp. 1]
EQUI 690	3535	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)]
EQUI 690	3540	Fuel type: Diesel only, by design. [Minn. R. 7005.0100, subp. 35a]
EQUI 690	3550	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]
EQUI 690	3560	The Permittee shall keep records of fuel type and usage on a monthly basis. [Minn. R. 7007.0800, subp. 5]
EQUI 690	3565	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]

SI Id	Sequence	Requirement
EQUI 690	27830	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); 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]

SI Id	Sequence	Requirement
EQUI 690	35690	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, Minn. R. 7019.0100]
EQUI 691	3520	Opacity <= 20 percent opacity once operating temperatures have been attained. [Minn. R. 7011.2300, subp. 1]
EQUI 691	3535	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)]
EQUI 691	3540	Fuel type: Diesel only, by design. [Minn. R. 7005.0100, subp. 35a]
EQUI 691	3550	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]
EQUI 691	3560	The Permittee shall keep records of fuel type and usage on a monthly basis. [Minn. R. 7007.0800, subp. 5]
EQUI 691	3565	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 691	19510	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	3520	Opacity <= 20 percent opacity once operating temperatures have been attained. [Minn. R. 7011.2300, subp. 1]
EQUI 692	3535	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)]
EQUI 692	3540	Fuel type: Diesel only, by design. [Minn. R. 7005.0100, subp. 35a]

SI Id	Sequence	Requirement
EQUI 692	3550	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]
EQUI 692	3560	The Permittee shall keep records of fuel type and usage on a monthly basis. [Minn. R. 7007.0800, subp. 5]
EQUI 692	3565	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 692	19510	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	3520	Opacity <= 20 percent opacity once operating temperatures have been attained. [Minn. R. 7011.2300, subp. 1]
EQUI 693	3535	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)]
EQUI 693	3540	Fuel type: Diesel only, by design. [Minn. R. 7005.0100, subp. 35a]
EQUI 693	3550	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]
EQUI 693	3560	The Permittee shall keep records of fuel type and usage on a monthly basis. [Minn. R. 7007.0800, subp. 5]
EQUI 693	3565	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 693	19510	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	3520	Opacity <= 20 percent opacity once operating temperatures have been attained. [Minn. R. 7011.2300, subp. 1]
EQUI 694	3535	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)]
EQUI 694	3540	Fuel type: Diesel only, by design. [Minn. R. 7005.0100, subp. 35a]
EQUI 694	3550	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]
EQUI 694	3560	The Permittee shall keep records of fuel type and usage on a monthly basis. [Minn. R. 7007.0800, subp. 5]
EQUI 694	3565	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 694	19510	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	3520	Opacity <= 20 percent opacity once operating temperatures have been attained. [Minn. R. 7011.2300, subp. 1]
EQUI 696	3535	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)]
EQUI 696	3540	Fuel type: Diesel only, by design. [Minn. R. 7005.0100, subp. 35a]
EQUI 696	3550	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]
EQUI 696	3560	The Permittee shall keep records of fuel type and usage on a monthly basis. [Minn. R. 7007.0800, subp. 5]

SI Id	Sequence	Requirement
EQUI 696	3565	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 696	19510	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	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 697	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 698	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 699	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 700	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 701	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	3680	Opacity <= 20 percent opacity. [Minn. R. 7011.0715, subp. 1(B)]
EQUI 702	3690	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply 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	3520	Opacity <= 20 percent opacity once operating temperatures have been attained. [Minn. R. 7011.2300, subp. 1]
EQUI 703	3535	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)]
EQUI 703	3540	Fuel type: Diesel only, by design. [Minn. R. 7005.0100, subp. 35a]
EQUI 703	3550	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]
EQUI 703	3560	The Permittee shall keep records of fuel type and usage on a monthly basis. [Minn. R. 7007.0800, subp. 5]
EQUI 703	3565	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 703	19530	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]
EQUI 703	28160	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]
EQUI 703	35500	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]
EQUI 703	35510	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]

SI Id	Sequence	Requirement
EQUI 703	35520	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]
EQUI 703	35530	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]
EQUI 703	35540	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]
EQUI 703	35550	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]
		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]
EQUI 703	35680	
EQUI 703	35685	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]

SI Id	Sequence	Requirement
EQUI 703	35700	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	3680	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]
EQUI 704	3680	Opacity <= 7 percent opacity. [40 CFR 60.672(a), Minn. R. 7011.3350]
EQUI 704	3681	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]
EQUI 704	19650	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]

SI Id	Sequence	Requirement
EQUI 704	19651	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]
EQUI 705	3680	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]
EQUI 705	3680	Opacity <= 7 percent opacity. [40 CFR 60.672(a), Minn. R. 7011.3350]
EQUI 705	3681	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]
EQUI 705	19650	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]

SI Id	Sequence	Requirement
		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]
EQUI 705	19651	
EQUI 706	3520	Opacity <= 20 percent opacity once operating temperatures have been attained. [Minn. R. 7011.2300, subp. 1]
EQUI 706	3535	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)]
EQUI 706	3540	Fuel type: Diesel only, by design. [Minn. R. 7005.0100, subp. 35a]
EQUI 706	3550	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]
EQUI 706	3560	The Permittee shall keep records of fuel type and usage on a monthly basis. [Minn. R. 7007.0800, subp. 5]
EQUI 706	3565	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 706	21020	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]
EQUI 706	28160	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]
EQUI 706	35620	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]
EQUI 706	35630	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]
EQUI 706	35640	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]
EQUI 706	35650	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]
EQUI 706	35660	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]

SI Id	Sequence	Requirement
EQUI 706	35670	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]
		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 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]
EQUI 706	35680	
		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	35685	

SI Id	Sequence	Requirement
EQUI 706	35700	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 706	35740	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]
EQUI 707	5	EQUI 707 is a cyclone used for product recovery from EQUI 146. Therefore, EQUI 707 is considered 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]
EQUI 707	17610	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)]
EQUI 707	20170	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)]
EQUI 707	20171	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]
EQUI 707	20172	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]
EQUI 707	30000	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]

SI Id	Sequence	Requirement
EQUI 708	5	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]
EQUI 708	17610	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)]
EQUI 708	20170	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]
EQUI 708	20170	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)]
EQUI 708	20171	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]
EQUI 708	30000	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 709	5	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]
EQUI 709	17610	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)]
EQUI 709	20170	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)]
EQUI 709	20170	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]
EQUI 709	20171	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]
EQUI 709	30000	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	5	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]
EQUI 710	17610	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)]

SI Id	Sequence	Requirement
EQUI 710	20170	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)]
EQUI 710	20171	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]
EQUI 710	20175	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]
EQUI 710	30000	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 711	5	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]
EQUI 711	17610	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)]
EQUI 711	20170	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)]
EQUI 711	20171	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]
EQUI 711	20175	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]
EQUI 711	30000	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	3450	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)]
EQUI 712	3460	Particulate Matter <= 0.30 grains per dry standard cubic foot of exhaust gas unless required to 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)]
EQUI 712	3512	Fuel type: Natural gas only, by design. [Minn. R. 7005.0100, subp. 35a]
EQUI 712	3517	The Permittee shall keep records of fuel purchases showing fuel types. [Minn. R. 7007.0800, subp. 5]
FUGI 1	2910	Opacity <= 20 percent opacity. [Minn. R. 7011.0110]
FUGI 1	2911	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)]

SI Id	Sequence	Requirement
FUGI 1	2912	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 3	2920	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	2910	Opacity <= 20 percent opacity. [Minn. R. 7011.0110]
FUGI 4	2911	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)]
FUGI 4	2912	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	2910	Opacity <= 20 percent opacity. [Minn. R. 7011.0110]
FUGI 5	2911	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)]
FUGI 5	2912	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	2910	Opacity <= 20 percent opacity except for one six-minute period per hour of not more than 33 percent opacity. [Minn. R. 7011.0105]
FUGI 6	2911	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)]
FUGI 6	2912	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	2910	Opacity <= 20 percent opacity except for one six-minute period per hour of not more than 33 percent opacity. [Minn. R. 7011.0105]
FUGI 8	2911	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)]
FUGI 8	2912	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]

SI Id	Sequence	Requirement
FUGI 8	19650	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	2910	Opacity <= 20 percent opacity except for one six-minute period per hour of not more than 33 percent opacity. [Minn. R. 7011.0105]
FUGI 9	2911	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)]
FUGI 9	2912	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	2910	Opacity <= 20 percent opacity. [Minn. R. 7011.0110]
FUGI 10	2911	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)]
FUGI 10	2912	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	2910	Opacity <= 20 percent opacity. [Minn. R. 7011.0110]
FUGI 12	2920	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	2910	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	2911	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)]
FUGI 14	2912	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	2910	Opacity <= 20 percent opacity except for one six-minute period per hour of not more than 33 percent opacity. [Minn. R. 7011.0105]
FUGI 15	2911	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)]
FUGI 15	2912	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]

SI Id	Sequence	Requirement
FUGI 16	2910	Opacity <= 20 percent opacity except for one six-minute period per hour of not more than 33 percent opacity. [Minn. R. 7011.0105]
FUGI 16	2911	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)]
FUGI 16	2912	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	2910	Opacity <= 20 percent opacity except for one six-minute period per hour of not more than 33 percent opacity. [Minn. R. 7011.0105]
FUGI 17	2911	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)]
FUGI 17	2912	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	2920	Opacity <= 20 percent opacity except for one six-minute period per hour of not more than 33 percent opacity. [Minn. R. 7011.0105]
FUGI 19	2910	Opacity <= 20 percent opacity. [Minn. R. 7011.0110]
FUGI 19	2911	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)]
FUGI 19	2912	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	2910	Opacity <= 20 percent opacity except for one six-minute period per hour of not more than 33 percent opacity. [Minn. R. 7011.0105]
FUGI 20	2911	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)]
FUGI 20	2912	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	19650	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	2910	Opacity <= 20 percent opacity. [Minn. R. 7011.0110]

SI Id	Sequence	Requirement
FUGI 21	2911	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)]
FUGI 21	2912	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	2910	Opacity <= 20 percent opacity. [Minn. R. 7011.0110]
FUGI 22	2911	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 corrective actions to eliminate the visible emissions. [Minn. R. 7007.0800, subp. 2(A)]
FUGI 22	2912	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	2910	Opacity <= 20 percent opacity except for one six-minute period per hour of not more than 33 percent opacity. [Minn. R. 7011.0105]
FUGI 23	2911	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)]
FUGI 23	2912	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	2910	Opacity <= 20 percent opacity. [Minn. R. 7011.0110]
FUGI 25	2910	Opacity <= 20 percent opacity. [Minn. R. 7011.0110]
FUGI 25	2911	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)]
FUGI 25	2912	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	2910	Opacity <= 20 percent opacity except for one six-minute period per hour of not more than 33 percent opacity. [Minn. R. 7011.0105]
FUGI 26	2911	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)]

SI Id	Sequence	Requirement
FUGI 26	2912	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 27	2920	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	2910	Opacity <= 20 percent opacity. [Minn. R. 7011.0110]
FUGI 28	2911	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)]
FUGI 28	2912	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	2910	Opacity <= 20 percent opacity. [Minn. R. 7011.0110]
FUGI 36	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]
FUGI 36	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]
FUGI 36	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. A copy of 40 CFR pt. 63, subp. RRRRR is included in Appendix J. [40 CFR pt. 63, subp. RRRRR, Minn. R. 7011.8030]

SI Id	Sequence	Requirement
		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).
FUGI 36	4	A copy of 40 CFR pt. 60, subp. LL is included in Appendix E. [40 CFR pt. 60, subp. LL, Minn. R. 7011.2700]
		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.
FUGI 36	5	A copy of 40 CFR pt. 60, subp. OOO is included in Appendix F. [40 CFR pt. 60, subp. OOO, Minn. R. 7011.3350]
		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,
FUGI 36	6	etc. [Minn. R. 7007.0800, subp. 2(B)]
		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.
FUGI 36	7	[Minn. R. 7007.0800, subps. 4-5]
		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
FUGI 36	8	in this permit. [Minn. R. 7007.0800, subps. 4-5]
		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 appropriate corrective actions to eliminate the visible emissions. [Minn. R. 7007.0800, subp. 2(A)]
FUGI 36	9	
		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]
FUGI 36	10	
		The Permittee must submit an annual report: Due annually, by the 31st of January. The report must 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)]
FUGI 36	11	

SI Id	Sequence	Requirement
FUGI 36	12	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 37	16440	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]
TREA 37	16445	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]
TREA 37	16480	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)]
TREA 37	16490	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)]
TREA 37	16500	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)]
TREA 37	16501	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]
TREA 37	16502	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]

SI Id	Sequence	Requirement
		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]
TREA 37	16505	
TREA 37	16510	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]
TREA 37	16520	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]
TREA 37	16530	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]
TREA 37	16531	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]
TREA 37	16532	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]
TREA 37	16540	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]
TREA 37	16550	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]
TREA 37	16560	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]

SI Id	Sequence	Requirement
TREA 37	16565	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]
TREA 37	16570	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]
TREA 37	16610	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]
TREA 37	16611	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]

SI Id	Sequence	Requirement
TREA 37	16620	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]
TREA 37	16630	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 37	35750	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]
TREA 37	35760	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]
TREA 37	35770	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	16440	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]
TREA 38	16445	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. 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]
TREA 38	16480	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]
TREA 38	16490	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]
TREA 38	16500	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]
TREA 38	16501	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]
TREA 38	16502	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]

SI Id	Sequence	Requirement
TREA 38	16505	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]
TREA 38	16510	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]
TREA 38	16520	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]
TREA 38	16530	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]
TREA 38	16532	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]
TREA 38	16540	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]
TREA 38	16540	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]
TREA 38	16550	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]
TREA 38	16560	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]

SI Id	Sequence	Requirement
TREA 38	16565	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]
TREA 38	16570	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]
TREA 38	16610	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]
TREA 38	16611	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]
TREA 38	16620	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]

SI Id	Sequence	Requirement
TREA 38	16630	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 38	35750	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]
TREA 38	35760	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]
TREA 38	35770	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	17610	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)]
TREA 48	17615	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)]
TREA 48	17777	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)]
TREA 48	27320	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)]
TREA 48	27330	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)]

SI Id	Sequence	Requirement
		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]
TREA 48	27340	
TREA 48	27480	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]
TREA 48	27490	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]
TREA 48	27501	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)]
TREA 48	27502	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)]
TREA 48	27503	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]

SI Id	Sequence	Requirement
TREA 48	27505	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]
TREA 48	27510	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]
TREA 48	27515	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]
TREA 48	27520	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]
TREA 48	27530	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]
TREA 48	27540	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]
TREA 48	27550	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]

SI Id	Sequence	Requirement
TREA 48	27555	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]
TREA 48	27565	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 48	27570	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	17610	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)]
TREA 49	17615	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. 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)]
TREA 49	17777	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)]
TREA 49	27320	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)]
TREA 49	27330	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)]

SI Id	Sequence	Requirement
		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]
TREA 49	27340	
TREA 49	27480	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]
TREA 49	27490	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]
TREA 49	27501	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)]
TREA 49	27502	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)]
TREA 49	27503	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]

SI Id	Sequence	Requirement
TREA 49	27505	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]
TREA 49	27510	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]
TREA 49	27515	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]
TREA 49	27520	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]
TREA 49	27530	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]
TREA 49	27540	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]
TREA 49	27550	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]

SI Id	Sequence	Requirement
TREA 49	27555	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]
TREA 49	27565	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 49	27570	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	17610	The Permittee shall vent emissions from EQUI 340 to TREA 50 whenever EQUI 340 operates, and 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)]
TREA 50	17615	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)]
TREA 50	17777	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)]
TREA 50	27320	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)]
TREA 50	27330	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)]

SI Id	Sequence	Requirement
TREA 50	27340	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]
TREA 50	27480	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]
TREA 50	27490	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]
TREA 50	27501	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)]
TREA 50	27502	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)]
TREA 50	27503	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]

SI Id	Sequence	Requirement
TREA 50	27505	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]
TREA 50	27510	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]
TREA 50	27515	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]
TREA 50	27520	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]
TREA 50	27530	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]
TREA 50	27540	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]
TREA 50	27550	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]

SI Id	Sequence	Requirement
TREA 50	27555	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]
TREA 50	27565	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 50	27570	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	17610	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)]
TREA 51	17615	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)]
TREA 51	17777	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)]
TREA 51	27320	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)]
TREA 51	27330	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)]

SI Id	Sequence	Requirement
		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]
TREA 51	27340	
TREA 51	27480	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]
TREA 51	27490	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]
TREA 51	27501	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)]
TREA 51	27502	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)]
TREA 51	27503	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]

SI Id	Sequence	Requirement
TREA 51	27505	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]
TREA 51	27510	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]
TREA 51	27515	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]
TREA 51	27520	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]
TREA 51	27530	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]
TREA 51	27540	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]
TREA 51	27550	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]

SI Id	Sequence	Requirement
TREA 51	27555	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]
TREA 51	27565	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 51	27570	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	17610	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)]
TREA 52	17615	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)]
TREA 52	17777	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)]
TREA 52	27320	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)]
TREA 52	27330	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)]

SI Id	Sequence	Requirement
		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]
TREA 52	27340	
TREA 52	27480	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]
TREA 52	27490	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]
TREA 52	27501	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)]
TREA 52	27502	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)]
TREA 52	27503	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]

SI Id	Sequence	Requirement
TREA 52	27505	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]
TREA 52	27510	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]
TREA 52	27515	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]
TREA 52	27520	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]
TREA 52	27530	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]
TREA 52	27540	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]
TREA 52	27550	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]

SI Id	Sequence	Requirement
TREA 52	27555	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]
TREA 52	27565	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 52	27570	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	17610	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. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
TREA 53	17615	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)]
TREA 53	17777	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)]
TREA 53	27320	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)]
TREA 53	27330	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)]

SI Id	Sequence	Requirement
		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]
TREA 53	27340	
TREA 53	27480	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]
TREA 53	27490	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]
TREA 53	27501	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)]
TREA 53	27502	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)]
TREA 53	27503	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]

SI Id	Sequence	Requirement
TREA 53	27505	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]
TREA 53	27510	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]
TREA 53	27515	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]
TREA 53	27520	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]
TREA 53	27530	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]
TREA 53	27540	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]
TREA 53	27550	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]

SI Id	Sequence	Requirement
TREA 53	27555	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]
TREA 53	27560	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. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B), Minn. R. 7017.2025]
TREA 53	27565	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 53	27570	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	17610	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)]

SI Id	Sequence	Requirement
TREA 54	17615	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)]
TREA 54	17777	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)]
TREA 54	27320	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)]
TREA 54	27330	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)]
TREA 54	27340	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]
TREA 54	27480	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]
TREA 54	27490	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]
TREA 54	27501	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)]

SI Id	Sequence	Requirement
TREA 54	27502	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)]
TREA 54	27503	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]
TREA 54	27505	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]
TREA 54	27510	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]
TREA 54	27515	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]
TREA 54	27520	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]
TREA 54	27530	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]
TREA 54	27540	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]

SI Id	Sequence	Requirement
TREA 54	27550	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]
TREA 54	27555	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]
TREA 54	27565	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 54	27570	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	17610	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)]

SI Id	Sequence	Requirement
TREA 57	17615	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. 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)]
TREA 57	17777	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)]
TREA 57	27320	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)]
TREA 57	27330	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)]
TREA 57	27340	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]
TREA 57	27480	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, 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]
TREA 57	27490	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. [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]
TREA 57	27501	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)]

SI Id	Sequence	Requirement
TREA 57	27502	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)]
TREA 57	27503	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]
TREA 57	27505	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]
TREA 57	27510	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]
TREA 57	27515	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]
TREA 57	27520	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]
TREA 57	27530	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]
TREA 57	27540	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]

SI Id	Sequence	Requirement
TREA 57	27550	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]
TREA 57	27555	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]
TREA 57	27565	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 57	27570	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	17610	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 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)]

SI Id	Sequence	Requirement
TREA 58	17615	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)]
TREA 58	17777	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)]
TREA 58	27320	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)]
TREA 58	27330	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)]
TREA 58	27340	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]
TREA 58	27480	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]
TREA 58	27490	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]
TREA 58	27501	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)]

SI Id	Sequence	Requirement
TREA 58	27502	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)]
TREA 58	27503	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]
TREA 58	27505	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]
TREA 58	27510	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]
TREA 58	27515	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]
TREA 58	27520	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]
TREA 58	27530	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]
TREA 58	27540	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]

SI Id	Sequence	Requirement
TREA 58	27550	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]
TREA 58	27555	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]
TREA 58	27565	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 58	27570	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	17610	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)]

SI Id	Sequence	Requirement
TREA 59	17615	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)]
TREA 59	17777	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)]
TREA 59	27320	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)]
TREA 59	27330	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)]
TREA 59	27340	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]
TREA 59	27480	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]
TREA 59	27490	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]

SI Id	Sequence	Requirement
TREA 59	27501	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)]
TREA 59	27502	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)]
TREA 59	27503	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]
TREA 59	27505	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]
TREA 59	27510	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]
TREA 59	27515	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]
TREA 59	27520	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]
TREA 59	27530	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]
TREA 59	27540	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]

SI Id	Sequence	Requirement
TREA 59	27550	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]
TREA 59	27555	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]
TREA 59	27565	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 59	27570	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	17610	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)]

SI Id	Sequence	Requirement
TREA 62	17615	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)]
TREA 62	17777	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)]
TREA 62	27320	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)]
TREA 62	27330	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)]
TREA 62	27340	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]
TREA 62	27480	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]
TREA 62	27490	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]
TREA 62	27501	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)]

SI Id	Sequence	Requirement
TREA 62	27502	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)]
TREA 62	27503	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]
TREA 62	27505	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]
TREA 62	27510	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]
TREA 62	27515	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]
TREA 62	27520	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]
TREA 62	27530	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]
TREA 62	27540	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]

SI Id	Sequence	Requirement
TREA 62	27550	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]
TREA 62	27555	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]
TREA 62	27560	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. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) and (B), Minn. R. 7017.2025]

SI Id	Sequence	Requirement
TREA 62	27565	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 62	27570	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	17610	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)]
TREA 63	17615	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)]
TREA 63	17777	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)]
TREA 63	27320	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)]
TREA 63	27330	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)]

SI Id	Sequence	Requirement
		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]
TREA 63	27340	
TREA 63	27480	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]
TREA 63	27490	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]
TREA 63	27501	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)]
TREA 63	27502	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)]
TREA 63	27503	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]

SI Id	Sequence	Requirement
TREA 63	27505	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]
TREA 63	27510	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]
TREA 63	27515	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]
TREA 63	27520	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]
TREA 63	27530	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]
TREA 63	27540	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]
TREA 63	27550	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]

SI Id	Sequence	Requirement
TREA 63	27555	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]
TREA 63	27565	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 63	27570	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	17610	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)]
TREA 64	17615	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)]
TREA 64	17777	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)]
TREA 64	27320	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)]
TREA 64	27330	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)]

SI Id	Sequence	Requirement
		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]
TREA 64	27340	
TREA 64	27480	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]
TREA 64	27490	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]
TREA 64	27501	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)]
TREA 64	27502	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)]
TREA 64	27503	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]

SI Id	Sequence	Requirement
TREA 64	27505	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]
TREA 64	27510	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]
TREA 64	27515	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]
TREA 64	27520	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]
TREA 64	27530	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]
TREA 64	27540	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]
TREA 64	27550	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]

SI Id	Sequence	Requirement
TREA 64	27555	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]
TREA 64	27565	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 64	27570	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	17610	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)]
TREA 65	17615	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. 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)]
TREA 65	17777	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)]
TREA 65	27320	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)]
TREA 65	27330	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)]

SI Id	Sequence	Requirement
		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]
TREA 65	27340	
TREA 65	27480	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]
TREA 65	27490	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]
TREA 65	27501	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)]
TREA 65	27502	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)]
TREA 65	27503	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]

SI Id	Sequence	Requirement
TREA 65	27505	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]
TREA 65	27510	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]
TREA 65	27515	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]
TREA 65	27520	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]
TREA 65	27530	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]
TREA 65	27540	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]
TREA 65	27550	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]

SI Id	Sequence	Requirement
TREA 65	27555	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]
TREA 65	27565	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 65	27570	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	17610	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)]
TREA 66	17615	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)]
TREA 66	17777	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)]
TREA 66	27320	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)]
TREA 66	27330	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)]

SI Id	Sequence	Requirement
		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]
TREA 66	27340	
TREA 66	27480	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]
TREA 66	27490	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]
TREA 66	27501	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)]
TREA 66	27502	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)]
TREA 66	27503	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]

SI Id	Sequence	Requirement
TREA 66	27505	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]
TREA 66	27510	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]
TREA 66	27515	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]
TREA 66	27520	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]
TREA 66	27530	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]
TREA 66	27540	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]
TREA 66	27550	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]

SI Id	Sequence	Requirement
TREA 66	27555	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]
TREA 66	27565	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 66	27570	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	17610	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)]
TREA 67	17615	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)]
TREA 67	17777	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)]
TREA 67	27320	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)]
TREA 67	27330	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)]

SI Id	Sequence	Requirement
		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]
TREA 67	27340	
TREA 67	27480	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]
TREA 67	27490	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]
TREA 67	27501	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)]
TREA 67	27502	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)]
TREA 67	27503	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]

SI Id	Sequence	Requirement
TREA 67	27505	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]
TREA 67	27510	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]
TREA 67	27515	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]
TREA 67	27520	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]
TREA 67	27530	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]
TREA 67	27540	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]
TREA 67	27550	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]

SI Id	Sequence	Requirement
TREA 67	27555	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]
TREA 67	27565	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 67	27570	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	17610	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)]
TREA 68	17615	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)]
TREA 68	17777	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)]
TREA 68	27320	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)]
TREA 68	27330	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)]

SI Id	Sequence	Requirement
		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]
TREA 68	27340	
TREA 68	27480	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]
TREA 68	27490	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]
TREA 68	27501	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)]
TREA 68	27502	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)]
TREA 68	27503	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]

SI Id	Sequence	Requirement
TREA 68	27505	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]
TREA 68	27510	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]
TREA 68	27515	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]
TREA 68	27520	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]
TREA 68	27530	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]
TREA 68	27540	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]
TREA 68	27550	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]

SI Id	Sequence	Requirement
TREA 68	27555	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]
TREA 68	27565	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 68	27570	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	17610	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)]
TREA 69	17615	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 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)]
TREA 69	17777	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)]
TREA 69	27320	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)]
TREA 69	27330	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)]

SI Id	Sequence	Requirement
		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]
TREA 69	27340	
TREA 69	27480	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]
TREA 69	27490	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]
TREA 69	27501	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)]
TREA 69	27502	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)]
TREA 69	27503	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]

SI Id	Sequence	Requirement
TREA 69	27505	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]
TREA 69	27510	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]
TREA 69	27515	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]
TREA 69	27520	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]
TREA 69	27530	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]
TREA 69	27540	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]
TREA 69	27550	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]

SI Id	Sequence	Requirement
TREA 69	27555	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]
TREA 69	27565	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 69	27570	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 70	17610	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)]
TREA 70	17615	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)]
TREA 70	17777	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)]
TREA 70	27320	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)]
TREA 70	27330	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)]

SI Id	Sequence	Requirement
		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]
TREA 70	27340	
TREA 70	27480	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]
TREA 70	27490	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]
TREA 70	27501	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)]
TREA 70	27502	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)]
TREA 70	27503	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]

SI Id	Sequence	Requirement
TREA 70	27505	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]
TREA 70	27510	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]
TREA 70	27515	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]
TREA 70	27520	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]
TREA 70	27530	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]
TREA 70	27540	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]
TREA 70	27550	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]

SI Id	Sequence	Requirement
TREA 70	27555	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]
TREA 70	27565	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 70	27570	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	17610	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]
TREA 71	17615	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]
TREA 71	17777	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]
TREA 71	27320	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]
TREA 71	27330	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]

SI Id	Sequence	Requirement
TREA 71	27340	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]
TREA 71	27480	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]
TREA 71	27490	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]
TREA 71	27501	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]
TREA 71	27502	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]
TREA 71	27503	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]

SI Id	Sequence	Requirement
TREA 71	27505	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]
TREA 71	27510	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]
TREA 71	27515	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]
TREA 71	27520	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]
TREA 71	27530	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]
TREA 71	27540	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]
TREA 71	27550	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]

SI Id	Sequence	Requirement
TREA 71	27555	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]
TREA 71	27565	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 71	27570	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	17610	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)]
TREA 72	17615	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)]
TREA 72	17777	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)]
TREA 72	27320	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)]
TREA 72	27330	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)]

SI Id	Sequence	Requirement
		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]
TREA 72	27340	
TREA 72	27480	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]
TREA 72	27490	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]
TREA 72	27501	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)]
TREA 72	27502	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)]
TREA 72	27503	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]

SI Id	Sequence	Requirement
TREA 72	27505	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]
TREA 72	27510	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]
TREA 72	27515	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]
TREA 72	27520	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]
TREA 72	27530	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]
TREA 72	27540	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]
TREA 72	27550	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]

SI Id	Sequence	Requirement
TREA 72	27555	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]
TREA 72	27565	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 72	27570	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	17610	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 Condition: Avoid major modification under 40 CFR 52.21(b)(2) & Minn. R. 7007.3000]
TREA 73	17615	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]
TREA 73	17777	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]
TREA 73	27320	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]
TREA 73	27330	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]

SI Id	Sequence	Requirement
TREA 73	27340	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]
TREA 73	27480	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. 7011.8030, Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) & Minn. R. 7007.3000]
TREA 73	27490	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]
TREA 73	27501	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]
TREA 73	27502	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]
TREA 73	27503	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]

SI Id	Sequence	Requirement
TREA 73	27505	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]
TREA 73	27510	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]
TREA 73	27515	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]
TREA 73	27520	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]
TREA 73	27530	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]
TREA 73	27540	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]
TREA 73	27550	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]

SI Id	Sequence	Requirement
TREA 73	27555	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]
TREA 73	27565	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 73	27570	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	17610	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)]
TREA 74	17615	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)]
TREA 74	17777	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)]
TREA 74	27320	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)]
TREA 74	27330	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)]

SI Id	Sequence	Requirement
		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]
TREA 74	27340	
TREA 74	27480	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]
TREA 74	27490	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]
TREA 74	27501	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)]
TREA 74	27502	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)]
TREA 74	27503	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]

SI Id	Sequence	Requirement
TREA 74	27505	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]
TREA 74	27510	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]
TREA 74	27515	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]
TREA 74	27520	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]
TREA 74	27530	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]
TREA 74	27540	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]
TREA 74	27550	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]

SI Id	Sequence	Requirement
TREA 74	27555	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]
TREA 74	27565	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 74	27570	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	17610	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)]
TREA 75	17615	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)]
TREA 75	17777	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)]
TREA 75	27320	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)]
TREA 75	27330	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)]

SI Id	Sequence	Requirement
		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]
TREA 75	27340	
TREA 75	27480	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]
TREA 75	27490	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]
TREA 75	27501	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)]
TREA 75	27502	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)]
TREA 75	27503	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]

SI Id	Sequence	Requirement
TREA 75	27505	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]
TREA 75	27510	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]
TREA 75	27515	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]
TREA 75	27520	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]
TREA 75	27530	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]
TREA 75	27540	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]
TREA 75	27550	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]

SI Id	Sequence	Requirement
TREA 75	27555	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]
TREA 75	27565	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 75	27570	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	17610	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]
TREA 76	17615	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]
TREA 76	17777	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]
TREA 76	27320	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]
TREA 76	27330	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]

SI Id	Sequence	Requirement
TREA 76	27340	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]
TREA 76	27480	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. 7011.8030, Minn. R. 7017.2025, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) & Minn. R. 7007.3000]
TREA 76	27490	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]
TREA 76	27501	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]
TREA 76	27502	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]
TREA 76	27503	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]

SI Id	Sequence	Requirement
TREA 76	27505	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]
TREA 76	27510	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]
TREA 76	27515	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]
TREA 76	27520	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]
TREA 76	27530	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]
TREA 76	27540	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]
TREA 76	27550	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]

SI Id	Sequence	Requirement
TREA 76	27555	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]
TREA 76	27565	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 76	27570	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	17610	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. 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)]
TREA 86	17615	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)]
TREA 86	17777	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)]
TREA 86	27320	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)]
TREA 86	27330	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)]

SI Id	Sequence	Requirement
		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]
TREA 86	27340	
TREA 86	27480	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]
TREA 86	27490	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]
TREA 86	27501	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)]
TREA 86	27502	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)]
TREA 86	27503	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]

SI Id	Sequence	Requirement
TREA 86	27505	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]
TREA 86	27510	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]
TREA 86	27515	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]
TREA 86	27520	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]
TREA 86	27530	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]
TREA 86	27540	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]
TREA 86	27550	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]

SI Id	Sequence	Requirement
TREA 86	27555	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]
TREA 86	27565	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 86	27570	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	17610	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)]
TREA 89	17615	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)]
TREA 89	18480	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)]
TREA 89	18490	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)]
TREA 89	18500	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)]
TREA 89	18510	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]

SI Id	Sequence	Requirement
TREA 89	18520	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]
TREA 89	18530	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]
TREA 89	18540	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]
TREA 89	18560	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]
TREA 89	18565	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]
TREA 89	18570	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]
TREA 89	18600	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]
TREA 89	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]

SI Id	Sequence	Requirement
		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. 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),
TREA 89	18610	
TREA 89	18620	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]
TREA 89	18630	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	16440	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]
TREA 90	16445	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]
TREA 90	17110	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]
TREA 90	17120	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]
TREA 90	17130	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)]

SI Id	Sequence	Requirement
TREA 90	18511	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. [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]
TREA 90	18520	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]
TREA 90	18530	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]
TREA 90	18540	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]
TREA 90	18560	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]
TREA 90	18565	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]
TREA 90	18570	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]
TREA 90	18600	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]
TREA 90	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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	17610	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-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)]

SI Id	Sequence	Requirement
TREA 94	17615	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)]
TREA 94	18480	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)]
TREA 94	18490	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)]
TREA 94	18500	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)]
TREA 94	18511	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)]
TREA 94	18540	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]
TREA 94	18550	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]
TREA 94	18560	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]
TREA 94	18565	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]
TREA 94	18570	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]
TREA 94	18600	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]
TREA 94	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]

SI Id	Sequence	Requirement
TREA 97	17610	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) &
TREA 97	17615	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)]
TREA 97	18480	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)]
TREA 97	18490	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) &
TREA 97	18500	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)]
TREA 97	18511	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)]
TREA 97	18540	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]
TREA 97	18550	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]
TREA 97	18560	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]
TREA 97	18565	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]
TREA 97	18570	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]
TREA 97	18600	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]

SI Id	Sequence	Requirement
TREA 97	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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	17610	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)]
TREA 98	17615	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. 2(A) & (B)]
TREA 98	18480	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)]
TREA 98	18490	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)]
TREA 98	18500	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)]
TREA 98	18511	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)]
TREA 98	18540	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]
TREA 98	18550	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]
TREA 98	18560	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]
TREA 98	18565	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]
TREA 98	18570	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]

SI Id	Sequence	Requirement
TREA 98	18600	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]
TREA 98	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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	17610	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)]
TREA 99	17615	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)]
TREA 99	18480	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)]
TREA 99	18490	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)]
TREA 99	18500	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)]
TREA 99	18511	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)]
TREA 99	18520	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]
TREA 99	18530	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]

SI Id	Sequence	Requirement
TREA 99	18540	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]
TREA 99	18550	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]
TREA 99	18560	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]
TREA 99	18565	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]
TREA 99	18570	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]
TREA 99	18600	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]
TREA 99	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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	17610	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)]
TREA 100	17615	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 the commencement/start of replacement. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
TREA 100	18480	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)]
TREA 100	18490	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)]
TREA 100	18500	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)]

SI Id	Sequence	Requirement
TREA 100	18511	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)]
TREA 100	18540	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]
TREA 100	18550	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]
TREA 100	18560	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]
TREA 100	18565	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]
TREA 100	18570	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]
TREA 100	18600	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]
TREA 100	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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	17610	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)]
TREA 101	17615	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)]
TREA 101	18480	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)]

SI Id	Sequence	Requirement
TREA 101	18490	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) &
TREA 101	18500	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)]
TREA 101	18511	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)]
TREA 101	18540	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]
TREA 101	18550	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]
TREA 101	18560	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]
TREA 101	18565	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]
TREA 101	18570	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]
TREA 101	18600	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]
TREA 101	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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	16440	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)]

SI Id	Sequence	Requirement
TREA 102	16445	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)]
TREA 102	18480	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)]
TREA 102	18490	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)]
TREA 102	18500	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)]
TREA 102	18511	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)]
TREA 102	18540	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]
TREA 102	18550	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]
TREA 102	18560	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]
TREA 102	18565	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]
TREA 102	18570	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]
TREA 102	18600	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]
TREA 102	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]

SI Id	Sequence	Requirement
TREA 103	17610	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)]
TREA 103	17615	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)]
TREA 103	17777	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)]
TREA 103	27320	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)]
TREA 103	27330	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)]
TREA 103	27340	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]
TREA 103	27480	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]
TREA 103	27490	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]
TREA 103	27501	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)]

SI Id	Sequence	Requirement
TREA 103	27502	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)]
TREA 103	27503	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]
TREA 103	27505	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]
TREA 103	27510	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]
TREA 103	27515	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]
TREA 103	27520	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]
TREA 103	27530	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]
TREA 103	27540	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]

SI Id	Sequence	Requirement
TREA 103	27550	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]
TREA 103	27555	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]
TREA 103	27565	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 103	27570	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	17610	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)]
TREA 104	17615	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)]

SI Id	Sequence	Requirement
TREA 104	17777	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) and (B)]
TREA 104	27320	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) and (B)]
TREA 104	27330	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)]
TREA 104	27340	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]
TREA 104	27480	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]
TREA 104	27490	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]
TREA 104	27501	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)]
TREA 104	27502	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)]
TREA 104	27503	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]

SI Id	Sequence	Requirement
TREA 104	27505	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]
TREA 104	27510	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]
TREA 104	27515	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]
TREA 104	27520	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]
TREA 104	27530	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]
TREA 104	27540	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]
TREA 104	27550	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]

SI Id	Sequence	Requirement
TREA 104	27555	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]
TREA 104	27565	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 104	27570	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	17610	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)]
TREA 107	17615	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)]
TREA 107	17777	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)]
TREA 107	27320	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)]
TREA 107	27330	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)]

SI Id	Sequence	Requirement
		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]
TREA 107	27340	
TREA 107	27480	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]
TREA 107	27490	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]
TREA 107	27501	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)]
TREA 107	27502	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)]
TREA 107	27503	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]

SI Id	Sequence	Requirement
TREA 107	27505	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]
TREA 107	27510	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]
TREA 107	27515	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]
TREA 107	27520	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]
TREA 107	27530	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]
TREA 107	27540	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]
TREA 107	27550	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]

SI Id	Sequence	Requirement
TREA 107	27555	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]
TREA 107	27565	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 107	27570	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	17610	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]
TREA 108	17615	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)]
TREA 108	17777	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)]
TREA 108	27320	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)]
TREA 108	27330	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)]

SI Id	Sequence	Requirement
TREA 108	27340	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]
TREA 108	27480	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]
TREA 108	27490	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]
TREA 108	27501	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)]
TREA 108	27502	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)]
TREA 108	27503	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]

SI Id	Sequence	Requirement
TREA 108	27505	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]
TREA 108	27510	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]
TREA 108	27515	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]
TREA 108	27520	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]
TREA 108	27530	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]
TREA 108	27540	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]
TREA 108	27550	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]

SI Id	Sequence	Requirement
TREA 108	27555	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]
TREA 108	27565	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 108	27570	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	17610	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)]
TREA 110	17615	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)]
TREA 110	18480	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)]
TREA 110	18490	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)]
TREA 110	18500	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)]
TREA 110	18511	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)]

SI Id	Sequence	Requirement
TREA 110	18540	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]
TREA 110	18550	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]
TREA 110	18560	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]
TREA 110	18565	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]
TREA 110	18570	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]
TREA 110	18600	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]
TREA 110	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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 111	16440	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)]
TREA 111	16445	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)]
TREA 111	17110	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)]
TREA 111	17120	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)]
TREA 111	17130	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)]

SI Id	Sequence	Requirement
TREA 111	18511	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)]
TREA 111	18540	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]
TREA 111	18550	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]
TREA 111	18560	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]
TREA 111	18565	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]
TREA 111	18570	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]
TREA 111	18600	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]
TREA 111	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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	17610	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)]
TREA 112	17615	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)]
TREA 112	17777	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)]
TREA 112	27320	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)]

SI Id	Sequence	Requirement
TREA 112	27330	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)]
TREA 112	27340	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]
TREA 112	27480	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]
TREA 112	27490	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]
TREA 112	27501	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)]
TREA 112	27502	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)]
TREA 112	27503	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]

SI Id	Sequence	Requirement
TREA 112	27505	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]
TREA 112	27510	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]
TREA 112	27515	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]
TREA 112	27520	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]
TREA 112	27530	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]
TREA 112	27540	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]
TREA 112	27550	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]

SI Id	Sequence	Requirement
TREA 112	27555	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]
TREA 112	27565	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 112	27570	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	17610	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)]
TREA 113	17615	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)]
TREA 113	17777	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)]
TREA 113	27320	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)]
TREA 113	27330	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)]

SI Id	Sequence	Requirement
TREA 113	27340	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]
TREA 113	27480	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]
TREA 113	27490	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]
TREA 113	27501	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)]
TREA 113	27502	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)]
TREA 113	27503	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]

SI Id	Sequence	Requirement
TREA 113	27505	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]
TREA 113	27510	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]
TREA 113	27515	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]
TREA 113	27520	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]
TREA 113	27530	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]
TREA 113	27540	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]
TREA 113	27550	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]

SI Id	Sequence	Requirement
TREA 113	27555	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]
TREA 113	27565	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 113	27570	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	14360	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]
TREA 115	16440	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)]

SI Id	Sequence	Requirement
TREA 115	16445	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)]
TREA 115	16449	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)]
TREA 115	16890	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)]
TREA 115	17110	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)]
TREA 115	17120	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)]
TREA 115	17130	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]
TREA 115	18510	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]
TREA 115	18530	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]
TREA 115	18550	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]
TREA 115	18560	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]
TREA 115	18565	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]
TREA 115	18600	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]

SI Id	Sequence	Requirement
TREA 115	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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 115	18610	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),
TREA 115	18620	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]
TREA 115	18630	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]

SI Id	Sequence	Requirement
TREA 116	14360	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]
TREA 116	16440	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)]
TREA 116	16445	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)]
TREA 116	16449	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)]
TREA 116	16890	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)]
TREA 116	17110	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)]
TREA 116	17120	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)]
TREA 116	17130	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]

SI Id	Sequence	Requirement
TREA 116	18510	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]
TREA 116	18530	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]
TREA 116	18550	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]
TREA 116	18560	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]
TREA 116	18565	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]
TREA 116	18600	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]
TREA 116	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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 116	18610	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),

SI Id	Sequence	Requirement
TREA 116	18620	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]
TREA 116	18630	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	14360	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]
TREA 117	16440	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)]
TREA 117	16445	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)]
TREA 117	16449	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)]
TREA 117	16890	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)]
TREA 117	17110	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)]
TREA 117	17120	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)]

SI Id	Sequence	Requirement
TREA 117	17130	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]
TREA 117	18510	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]
TREA 117	18530	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]
TREA 117	18550	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]
TREA 117	18560	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]
TREA 117	18565	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]
TREA 117	18600	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]
TREA 117	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]

SI Id	Sequence	Requirement
		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),
TREA 117	18610	
TREA 117	18620	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]
		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.
TREA 117	18630	[Minn. R. 7017.2025]
		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)]
TREA 120	16440	
		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 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)]
TREA 120	16445	
		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)]
TREA 120	17420	
		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)]
TREA 120	17430	
		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)]
TREA 120	17440	
		Pressure Drop ≥ 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]
TREA 120	17450	
		Water flow rate ≥ 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]
TREA 120	17460	

SI Id	Sequence	Requirement
TREA 120	27501	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)]
TREA 120	27502	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)]
TREA 120	27503	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]
TREA 120	27505	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]
TREA 120	27510	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]
TREA 120	27515	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]
TREA 120	27520	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]
TREA 120	27530	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]
TREA 120	27540	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]

SI Id	Sequence	Requirement
TREA 120	27550	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]
TREA 120	27555	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]
TREA 120	27565	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	27570	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	17610	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)]
TREA 121	17615	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)]

SI Id	Sequence	Requirement
TREA 121	17777	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)]
TREA 121	27320	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)]
TREA 121	27330	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)]
TREA 121	27340	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]
TREA 121	27480	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]
TREA 121	27490	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]
TREA 121	27501	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)]
TREA 121	27502	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)]
TREA 121	27503	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]

SI Id	Sequence	Requirement
TREA 121	27505	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]
TREA 121	27510	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]
TREA 121	27515	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]
TREA 121	27520	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]
TREA 121	27530	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]
TREA 121	27540	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]
TREA 121	27550	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]

SI Id	Sequence	Requirement
TREA 121	27555	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]
TREA 121	27565	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 121	27570	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	17610	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)]
TREA 126	17615	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)]
TREA 126	17777	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)]
TREA 126	27320	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)]
TREA 126	27330	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)]

SI Id	Sequence	Requirement
TREA 126	27340	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]
TREA 126	27480	Pressure Drop $\geq$ 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]
TREA 126	27490	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]
TREA 126	27501	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)]
TREA 126	27502	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)]
TREA 126	27503	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]

SI Id	Sequence	Requirement
TREA 126	27505	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]
TREA 126	27510	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]
TREA 126	27515	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]
TREA 126	27520	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]
TREA 126	27530	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]
TREA 126	27540	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]
TREA 126	27550	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]

SI Id	Sequence	Requirement
TREA 126	27555	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]
TREA 126	27565	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 126	27570	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	17610	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 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)]
TREA 127	17615	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)]
TREA 127	17777	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)]
TREA 127	27320	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)]
TREA 127	27330	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)]

SI Id	Sequence	Requirement
		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]
TREA 127	27340	
TREA 127	27480	Pressure Drop $\geq$ 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]
TREA 127	27490	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]
TREA 127	27501	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)]
TREA 127	27502	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)]
TREA 127	27503	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]

SI Id	Sequence	Requirement
TREA 127	27505	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]
TREA 127	27510	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]
TREA 127	27515	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]
TREA 127	27520	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]
TREA 127	27530	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]
TREA 127	27540	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]
TREA 127	27550	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]

SI Id	Sequence	Requirement
TREA 127	27555	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]
TREA 127	27565	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 127	27570	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	17610	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)]
TREA 130	17615	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)]
TREA 130	18480	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)]
TREA 130	18490	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)]
TREA 130	18500	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)]
TREA 130	18511	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)]

SI Id	Sequence	Requirement
TREA 130	18540	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]
TREA 130	18550	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]
TREA 130	18560	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]
TREA 130	18565	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]
TREA 130	18570	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]
TREA 130	18600	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]
TREA 130	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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	17610	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)]
TREA 132	17615	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)]
TREA 132	17777	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)]
TREA 132	27320	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)]
TREA 132	27330	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)]

SI Id	Sequence	Requirement
		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]
TREA 132	27340	
TREA 132	27480	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]
TREA 132	27490	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]
TREA 132	27501	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)]
TREA 132	27502	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)]
TREA 132	27503	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]

SI Id	Sequence	Requirement
TREA 132	27505	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]
TREA 132	27510	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]
TREA 132	27515	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]
TREA 132	27520	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]
TREA 132	27530	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]
TREA 132	27540	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]
TREA 132	27550	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]

SI Id	Sequence	Requirement
TREA 132	27555	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]
TREA 132	27565	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 132	27570	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	17610	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)]
TREA 133	17615	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)]
TREA 133	17777	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)]
TREA 133	27320	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)]
TREA 133	27330	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)]

SI Id	Sequence	Requirement
		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]
TREA 133	27340	
TREA 133	27480	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]
TREA 133	27490	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]
TREA 133	27501	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)]
TREA 133	27502	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)]
TREA 133	27503	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]

SI Id	Sequence	Requirement
TREA 133	27505	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]
TREA 133	27510	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]
TREA 133	27515	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]
TREA 133	27520	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]
TREA 133	27530	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]
TREA 133	27540	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]
TREA 133	27550	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]

SI Id	Sequence	Requirement
TREA 133	27555	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]
TREA 133	27565	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 133	27570	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	17610	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)]
TREA 134	17615	If the Permittee replaces TREA 134, the replacement control must meet or exceed the control 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)]
TREA 134	17777	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)]
TREA 134	27320	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)]
TREA 134	27330	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)]

SI Id	Sequence	Requirement
		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]
TREA 134	27340	
TREA 134	27480	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]
TREA 134	27490	Water flow rate $\geq$ 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 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]
TREA 134	27501	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)]
TREA 134	27502	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)]
TREA 134	27503	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]

SI Id	Sequence	Requirement
TREA 134	27505	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]
TREA 134	27510	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]
TREA 134	27515	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]
TREA 134	27520	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]
TREA 134	27530	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]
TREA 134	27540	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]
TREA 134	27550	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]

SI Id	Sequence	Requirement
TREA 134	27555	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]
TREA 134	27565	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 134	27570	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 135	17610	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)]
TREA 135	17615	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)]
TREA 135	18480	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)]
TREA 135	18490	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)]
TREA 135	18500	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)]
TREA 135	18511	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)]

SI Id	Sequence	Requirement
		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.
TREA 135	18520	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]
TREA 135	18530	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]
TREA 135	18540	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]
TREA 135	18560	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]
TREA 135	18565	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]
TREA 135	18570	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]
TREA 135	18600	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]
TREA 135	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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	17610	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)]
TREA 136	17615	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)]
TREA 136	18480	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)]
TREA 136	18490	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)]

SI Id	Sequence	Requirement
TREA 136	18500	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)]
TREA 136	18511	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)]
TREA 136	18540	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]
TREA 136	18550	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]
TREA 136	18560	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]
TREA 136	18565	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]
TREA 136	18570	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]
TREA 136	18600	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]
TREA 136	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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 137	16440	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)]
TREA 137	16445	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)]

SI Id	Sequence	Requirement
TREA 137	18480	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)]
TREA 137	18490	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)]
TREA 137	18500	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)]
TREA 137	18511	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)]
TREA 137	18540	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]
TREA 137	18550	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]
TREA 137	18560	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]
TREA 137	18565	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]
TREA 137	18570	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]
TREA 137	18600	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]
TREA 137	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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	17610	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)]

SI Id	Sequence	Requirement
TREA 138	17615	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)]
TREA 138	17777	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)]
TREA 138	27320	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)]
TREA 138	27330	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)]
TREA 138	27340	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]
TREA 138	27480	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]
TREA 138	27490	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]
TREA 138	27501	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)]

SI Id	Sequence	Requirement
TREA 138	27502	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)]
TREA 138	27503	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]
TREA 138	27505	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]
TREA 138	27510	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]
TREA 138	27515	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]
TREA 138	27520	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]
TREA 138	27530	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]
TREA 138	27540	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]

SI Id	Sequence	Requirement
TREA 138	27550	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]
TREA 138	27555	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]
TREA 138	27565	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 138	27570	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	17610	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)]
TREA 139	17615	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)]

SI Id	Sequence	Requirement
TREA 139	17777	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)]
TREA 139	27320	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)]
TREA 139	27330	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)]
TREA 139	27340	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]
TREA 139	27480	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]
TREA 139	27490	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]
TREA 139	27501	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)]
TREA 139	27502	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)]
TREA 139	27503	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]

SI Id	Sequence	Requirement
TREA 139	27505	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]
TREA 139	27510	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]
TREA 139	27515	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]
TREA 139	27520	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]
TREA 139	27530	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]
TREA 139	27540	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]
TREA 139	27550	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]

SI Id	Sequence	Requirement
TREA 139	27555	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]
TREA 139	27565	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 139	27570	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	16440	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]
TREA 143	16445	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. 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]
TREA 143	16480	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)]
TREA 143	16490	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)]
TREA 143	16500	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)]
TREA 143	16501	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]
TREA 143	16502	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]

SI Id	Sequence	Requirement
		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]
TREA 143	16504	
TREA 143	16510	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]
TREA 143	16520	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]
TREA 143	16530	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]
TREA 143	16531	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]
TREA 143	16532	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]
TREA 143	16540	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]
TREA 143	16550	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]
TREA 143	16560	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]

SI Id	Sequence	Requirement
TREA 143	16565	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]
TREA 143	16570	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]
TREA 143	16610	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]
TREA 143	16611	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]

SI Id	Sequence	Requirement
TREA 143	16620	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]
TREA 143	16630	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 143	35750	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]
TREA 143	35760	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]
TREA 143	35770	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	16440	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)]
TREA 145	16445	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)]
TREA 145	18480	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)]
TREA 145	18490	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)]
TREA 145	18500	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)]
TREA 145	18511	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)]

SI Id	Sequence	Requirement
TREA 145	18540	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]
TREA 145	18550	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]
TREA 145	18560	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]
TREA 145	18565	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]
TREA 145	18570	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]
TREA 145	18600	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]
TREA 145	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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	17610	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 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)]
TREA 146	17615	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)]
TREA 146	17777	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)]
TREA 146	27320	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)]
TREA 146	27330	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)]

SI Id	Sequence	Requirement
		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]
TREA 146	27340	
TREA 146	27480	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]
TREA 146	27490	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]
TREA 146	27501	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)]
TREA 146	27502	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)]
TREA 146	27503	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]

SI Id	Sequence	Requirement
TREA 146	27505	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]
TREA 146	27510	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]
TREA 146	27515	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]
TREA 146	27520	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]
TREA 146	27530	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]
TREA 146	27540	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]
TREA 146	27550	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]

SI Id	Sequence	Requirement
TREA 146	27555	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]
TREA 146	27565	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 146	27570	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	17610	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)]
TREA 147	17615	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)]
TREA 147	17777	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)]
TREA 147	27320	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)]
TREA 147	27330	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)]

SI Id	Sequence	Requirement
		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]
TREA 147	27340	
TREA 147	27480	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]
TREA 147	27490	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]
TREA 147	27492	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)]
TREA 147	27493	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)]
TREA 147	27500	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]
TREA 147	27505	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]

SI Id	Sequence	Requirement
TREA 147	27510	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]
TREA 147	27515	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]
TREA 147	27520	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]
TREA 147	27530	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]
TREA 147	27540	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]
TREA 147	27550	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]
TREA 147	27555	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]

SI Id	Sequence	Requirement
TREA 147	27565	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 147	27570	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	14390	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]
TREA 151	16440	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]
TREA 151	16445	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)]
TREA 151	16480	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)]
TREA 151	16490	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)]
TREA 151	16501	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]
TREA 151	16502	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]

SI Id	Sequence	Requirement
TREA 151	16503	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]
TREA 151	16510	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]
TREA 151	16520	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]
TREA 151	16530	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]
TREA 151	16531	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]
TREA 151	16532	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]
TREA 151	16540	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]
TREA 151	16550	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]
TREA 151	16560	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]

SI Id	Sequence	Requirement
TREA 151	16565	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]
TREA 151	16570	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]
TREA 151	16610	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]
TREA 151	16611	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]

SI Id	Sequence	Requirement
TREA 151	16620	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]
TREA 151	16630	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 151	35750	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]
TREA 151	35760	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]
TREA 151	35770	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	17610	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]
TREA 171	17615	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]
TREA 171	18480	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]
TREA 171	18490	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]
TREA 171	18500	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)]
TREA 171	18510	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]

SI Id	Sequence	Requirement
		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.
TREA 171	18520	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]
TREA 171	18530	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]
TREA 171	18540	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]
TREA 171	18560	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]
TREA 171	18565	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]
TREA 171	18570	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]
TREA 171	18600	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]
TREA 171	18600	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]
TREA 171	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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	17610	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)]
TREA 172	17615	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)]
TREA 172	17777	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)]

SI Id	Sequence	Requirement
TREA 172	27320	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) &
TREA 172	27330	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)]
		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]
TREA 172	27340	
TREA 172	27460	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]
TREA 172	27470	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]
TREA 172	27501	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)]
TREA 172	27502	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)]
TREA 172	27503	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]

SI Id	Sequence	Requirement
TREA 172	27505	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]
TREA 172	27510	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]
TREA 172	27515	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]
TREA 172	27520	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]
TREA 172	27530	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]
TREA 172	27540	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]
TREA 172	27555	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]

SI Id	Sequence	Requirement
TREA 172	30001	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]
TREA 172	30002	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	17610	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)]
TREA 173	17615	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)]
TREA 173	17777	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)]
TREA 173	27320	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)]
TREA 173	27330	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)]

SI Id	Sequence	Requirement
		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]
TREA 173	27340	
TREA 173	27460	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]
TREA 173	27470	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]
TREA 173	27501	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)]
TREA 173	27502	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)]
TREA 173	27503	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]

SI Id	Sequence	Requirement
TREA 173	27505	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]
TREA 173	27510	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]
TREA 173	27515	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]
TREA 173	27520	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]
TREA 173	27530	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]
TREA 173	27540	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]
TREA 173	27555	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]

SI Id	Sequence	Requirement
TREA 173	30001	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]
TREA 173	30002	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	17610	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)]
TREA 174	17615	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)]
TREA 174	17777	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)]
TREA 174	27320	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)]
TREA 174	27330	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)]

SI Id	Sequence	Requirement
		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]
TREA 174	27340	
TREA 174	27460	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]
TREA 174	27470	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]
TREA 174	27501	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)]
TREA 174	27502	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)]
TREA 174	27503	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]

SI Id	Sequence	Requirement
TREA 174	27505	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]
TREA 174	27510	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]
TREA 174	27515	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]
TREA 174	27520	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]
TREA 174	27530	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]
TREA 174	27540	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]
TREA 174	27555	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]

SI Id	Sequence	Requirement
TREA 174	30001	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]
TREA 174	30002	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	17610	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)]
TREA 175	17615	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)]
TREA 175	17777	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)]
TREA 175	27320	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)]
TREA 175	27330	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)]

SI Id	Sequence	Requirement
		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]
TREA 175	27340	
TREA 175	27460	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]
TREA 175	27470	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]
TREA 175	27501	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)]
TREA 175	27502	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)]
TREA 175	27503	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]

SI Id	Sequence	Requirement
TREA 175	27505	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]
TREA 175	27510	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]
TREA 175	27515	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]
TREA 175	27520	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]
TREA 175	27530	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]
TREA 175	27540	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]
TREA 175	27555	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]

SI Id	Sequence	Requirement
TREA 175	30001	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]
TREA 175	30002	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	17610	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)]
TREA 176	17615	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)]
TREA 176	17777	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)]
TREA 176	27320	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)]
TREA 176	27330	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)]

SI Id	Sequence	Requirement
TREA 176	27340	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]
TREA 176	27460	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]
TREA 176	27470	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]
TREA 176	27501	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)]
TREA 176	27502	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)]
TREA 176	27503	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]

SI Id	Sequence	Requirement
TREA 176	27505	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]
TREA 176	27510	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]
TREA 176	27515	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]
TREA 176	27520	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]
TREA 176	27530	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]
TREA 176	27540	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]
TREA 176	27555	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]

SI Id	Sequence	Requirement
TREA 176	30001	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]
TREA 176	30002	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	17610	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)]
TREA 177	17615	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)]
TREA 177	17777	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)]
TREA 177	27320	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)]
TREA 177	27330	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)]

SI Id	Sequence	Requirement
		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]
TREA 177	27340	
TREA 177	27460	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]
TREA 177	27470	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]
TREA 177	27501	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)]
TREA 177	27502	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)]
TREA 177	27503	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]

SI Id	Sequence	Requirement
TREA 177	27505	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]
TREA 177	27510	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]
TREA 177	27515	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]
TREA 177	27520	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]
TREA 177	27530	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]
TREA 177	27540	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]
TREA 177	27555	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]

SI Id	Sequence	Requirement
TREA 177	30001	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]
TREA 177	30002	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	17610	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)]
TREA 178	17615	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)]
TREA 178	17777	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)]
TREA 178	27320	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)]
TREA 178	27330	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)]

SI Id	Sequence	Requirement
TREA 178	27340	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]
TREA 178	27460	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]
TREA 178	27470	Water flow rate $\geq$ 280 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]
TREA 178	27501	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)]
TREA 178	27502	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)]
TREA 178	27503	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]

SI Id	Sequence	Requirement
TREA 178	27505	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]
TREA 178	27510	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]
TREA 178	27515	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]
TREA 178	27520	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]
TREA 178	27530	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]
TREA 178	27540	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]
TREA 178	27555	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]

SI Id	Sequence	Requirement
TREA 178	30001	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]
TREA 178	30002	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	17610	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)]
TREA 179	17615	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)]
TREA 179	17777	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)]
TREA 179	27320	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)]
TREA 179	27330	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)]

SI Id	Sequence	Requirement
		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]
TREA 179	27340	
TREA 179	27460	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]
TREA 179	27470	Water flow rate $\geq$ 280 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]
TREA 179	27501	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)]
TREA 179	27502	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)]
TREA 179	27503	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]

SI Id	Sequence	Requirement
TREA 179	27505	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]
TREA 179	27510	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]
TREA 179	27515	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]
TREA 179	27520	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]
TREA 179	27530	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]
TREA 179	27540	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]
TREA 179	27555	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]

SI Id	Sequence	Requirement
TREA 179	30001	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]
TREA 179	30002	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	17610	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)]
TREA 185	17615	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)]
TREA 185	17777	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)]
TREA 185	27320	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)]
TREA 185	27330	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)]

SI Id	Sequence	Requirement
		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]
TREA 185	27340	
TREA 185	27480	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]
TREA 185	27490	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]
TREA 185	27501	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)]
TREA 185	27502	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)]
TREA 185	27503	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]

SI Id	Sequence	Requirement
TREA 185	27505	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]
TREA 185	27510	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]
TREA 185	27515	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]
TREA 185	27520	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]
TREA 185	27530	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]
TREA 185	27540	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]
TREA 185	27550	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]

SI Id	Sequence	Requirement
TREA 185	27555	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]
TREA 185	27565	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 185	27570	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	17610	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)]
TREA 187	17615	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)]
TREA 187	17777	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)]
TREA 187	27320	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)]
TREA 187	27330	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)]

SI Id	Sequence	Requirement
		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]
TREA 187	27340	
TREA 187	27480	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]
TREA 187	27490	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]
TREA 187	27501	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)]
TREA 187	27502	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)]
TREA 187	27503	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]

SI Id	Sequence	Requirement
TREA 187	27505	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]
TREA 187	27510	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]
TREA 187	27515	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]
TREA 187	27520	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]
TREA 187	27530	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]
TREA 187	27540	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]
TREA 187	27550	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]

SI Id	Sequence	Requirement
TREA 187	27555	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]
TREA 187	27565	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 187	27570	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	17610	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 EQUI 215 is operating. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
TREA 188	17615	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)]
TREA 188	17777	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)]
TREA 188	27320	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)]
TREA 188	27330	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)]
TREA 188	27480	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]
TREA 188	27490	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]

SI Id	Sequence	Requirement
TREA 188	27501	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)]
TREA 188	27502	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)]
TREA 188	27503	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]
TREA 188	27505	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]
TREA 188	27510	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]
TREA 188	27515	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]
TREA 188	27520	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]
TREA 188	27530	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]
TREA 188	27540	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]

SI Id	Sequence	Requirement
TREA 188	27550	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]
TREA 188	27555	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]
TREA 188	27565	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 188	27570	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	17610	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)]

SI Id	Sequence	Requirement
TREA 189	17615	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)]
TREA 189	17777	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)]
TREA 189	27320	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)]
TREA 189	27330	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)]
TREA 189	27340	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]
TREA 189	27480	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]
TREA 189	27490	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]
TREA 189	27501	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)]

SI Id	Sequence	Requirement
TREA 189	27502	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)]
TREA 189	27503	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]
TREA 189	27505	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]
TREA 189	27510	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]
TREA 189	27515	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]
TREA 189	27520	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]
TREA 189	27530	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]
TREA 189	27540	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]

SI Id	Sequence	Requirement
TREA 189	27550	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]
TREA 189	27555	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]
TREA 189	27565	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 189	27570	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	17610	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)]

SI Id	Sequence	Requirement
TREA 190	17615	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)]
TREA 190	17777	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)]
TREA 190	27320	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)]
TREA 190	27330	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)]
TREA 190	27340	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]
TREA 190	27480	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]
TREA 190	27490	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]
TREA 190	27501	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)]

SI Id	Sequence	Requirement
TREA 190	27502	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)]
TREA 190	27503	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]
TREA 190	27505	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]
TREA 190	27510	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]
TREA 190	27515	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]
TREA 190	27520	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]
TREA 190	27530	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]
TREA 190	27540	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]

SI Id	Sequence	Requirement
TREA 190	27550	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]
TREA 190	27555	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]
TREA 190	27565	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 190	27570	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	17610	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. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]

SI Id	Sequence	Requirement
TREA 191	17615	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)]
TREA 191	17777	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)]
TREA 191	27320	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)]
TREA 191	27330	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)]
TREA 191	27340	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]
TREA 191	27480	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]
TREA 191	27490	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]
TREA 191	27501	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)]

SI Id	Sequence	Requirement
TREA 191	27502	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)]
TREA 191	27503	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]
TREA 191	27505	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]
TREA 191	27510	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]
TREA 191	27515	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]
TREA 191	27520	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]
TREA 191	27530	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]
TREA 191	27540	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]

SI Id	Sequence	Requirement
TREA 191	27550	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]
TREA 191	27555	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]
TREA 191	27565	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 191	27570	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	17610	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)]

SI Id	Sequence	Requirement
TREA 192	17615	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)]
TREA 192	17777	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)]
TREA 192	27320	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)]
TREA 192	27330	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)]
TREA 192	27340	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]
TREA 192	27480	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]
TREA 192	27490	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]
TREA 192	27501	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)]

SI Id	Sequence	Requirement
TREA 192	27502	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)]
TREA 192	27503	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]
TREA 192	27505	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]
TREA 192	27510	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]
TREA 192	27515	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]
TREA 192	27520	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]
TREA 192	27530	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]
TREA 192	27540	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]

SI Id	Sequence	Requirement
TREA 192	27550	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]
TREA 192	27555	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]
TREA 192	27565	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 192	27570	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	17610	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)]

SI Id	Sequence	Requirement
TREA 193	17615	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)]
TREA 193	17777	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)]
TREA 193	27320	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)]
TREA 193	27330	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)]
TREA 193	27340	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]
TREA 193	27480	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]
TREA 193	27490	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]
TREA 193	27501	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)]

SI Id	Sequence	Requirement
TREA 193	27502	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)]
TREA 193	27503	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]
TREA 193	27505	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]
TREA 193	27510	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]
TREA 193	27515	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]
TREA 193	27520	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]
TREA 193	27530	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]
TREA 193	27540	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]

SI Id	Sequence	Requirement
TREA 193	27550	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]
TREA 193	27555	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]
TREA 193	27565	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 193	27570	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]

SI Id	Sequence	Requirement
TREA 194	14360	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]
TREA 194	16440	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)]
TREA 194	16445	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)]
TREA 194	16449	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)]
TREA 194	16890	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)]
TREA 194	17110	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)]
TREA 194	17120	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)]
TREA 194	18505	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]

SI Id	Sequence	Requirement
TREA 194	18510	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]
TREA 194	18530	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]
TREA 194	18550	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]
TREA 194	18560	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]
TREA 194	18565	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]
TREA 194	18600	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]
TREA 194	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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 194	18610	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),

SI Id	Sequence	Requirement
TREA 194	18620	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]
TREA 194	18630	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	14360	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]
TREA 195	16440	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)]
TREA 195	16445	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)]
TREA 195	16449	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)]
TREA 195	16890	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)]
TREA 195	17110	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)]
TREA 195	17120	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)]

SI Id	Sequence	Requirement
TREA 195	18505	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]
TREA 195	18510	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]
TREA 195	18530	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]
TREA 195	18550	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]
TREA 195	18560	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]
TREA 195	18565	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]
TREA 195	18600	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]
TREA 195	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]

SI Id	Sequence	Requirement
TREA 195	18610	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),
TREA 195	18620	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]
TREA 195	18630	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	14360	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]

SI Id	Sequence	Requirement
TREA 196	16440	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)]
TREA 196	16445	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)]
TREA 196	16449	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)]
TREA 196	16890	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)]
TREA 196	17110	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)]
TREA 196	17120	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)]
TREA 196	18505	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]
TREA 196	18510	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]
TREA 196	18530	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]
TREA 196	18550	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]
TREA 196	18560	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]
TREA 196	18565	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]

SI Id	Sequence	Requirement
TREA 196	18600	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]
TREA 196	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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 196	18610	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),
TREA 196	18620	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]
TREA 196	18630	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]

SI Id	Sequence	Requirement
TREA 197	14360	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]
TREA 197	16440	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)]
TREA 197	16445	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)]
TREA 197	16449	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)]
TREA 197	16890	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)]
TREA 197	17110	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)]
TREA 197	17120	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)]
TREA 197	18505	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]

SI Id	Sequence	Requirement
TREA 197	18510	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]
TREA 197	18530	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]
TREA 197	18550	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]
TREA 197	18560	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]
TREA 197	18565	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]
TREA 197	18600	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]
TREA 197	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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 197	18610	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),

SI Id	Sequence	Requirement
TREA 197	18620	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]
TREA 197	18630	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	14360	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]
TREA 198	16440	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)]
TREA 198	16445	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)]
TREA 198	16449	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)]
TREA 198	16890	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)]
TREA 198	17110	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)]
TREA 198	17120	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)]

SI Id	Sequence	Requirement
TREA 198	18505	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]
TREA 198	18510	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]
TREA 198	18530	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]
TREA 198	18550	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]
TREA 198	18560	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]
TREA 198	18565	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]
TREA 198	18600	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]
TREA 198	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]

SI Id	Sequence	Requirement
TREA 198	18610	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),
TREA 198	18620	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]
TREA 198	18630	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	14360	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]

SI Id	Sequence	Requirement
TREA 199	16440	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)]
TREA 199	16445	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)]
TREA 199	16449	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)]
TREA 199	16890	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)]
TREA 199	17110	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
TREA 199	17120	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)]
TREA 199	18505	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]
TREA 199	18510	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]
TREA 199	18530	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]
TREA 199	18550	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]
TREA 199	18560	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]
TREA 199	18565	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]

SI Id	Sequence	Requirement
TREA 199	18600	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]
TREA 199	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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 199	18610	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),
TREA 199	18620	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]
TREA 199	18630	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]

SI Id	Sequence	Requirement
TREA 200	14360	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]
TREA 200	16440	The Permittee shall vent emissions from EQUI 54 and EQUI 55 to TREA 200 whenever EQUI 54 or EQUI 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)]
TREA 200	16445	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)]
TREA 200	16449	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)]
TREA 200	16890	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)]
TREA 200	17110	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)]
TREA 200	17120	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)]
TREA 200	18505	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]

SI Id	Sequence	Requirement
TREA 200	18510	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]
TREA 200	18530	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]
TREA 200	18550	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]
TREA 200	18560	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]
TREA 200	18565	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]
TREA 200	18600	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]
TREA 200	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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 200	18610	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),

SI Id	Sequence	Requirement
TREA 200	18620	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]
TREA 200	18630	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	14360	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]
TREA 201	16440	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)]
TREA 201	16445	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)]
TREA 201	16449	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)]
TREA 201	16890	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)]
TREA 201	17110	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)]
TREA 201	17120	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)]

SI Id	Sequence	Requirement
TREA 201	18505	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]
TREA 201	18510	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]
TREA 201	18530	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]
TREA 201	18550	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]
TREA 201	18560	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]
TREA 201	18565	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]
TREA 201	18600	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]
TREA 201	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]

SI Id	Sequence	Requirement
TREA 201	18610	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),
TREA 201	18620	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]
TREA 201	18630	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	14360	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]

SI Id	Sequence	Requirement
TREA 202	16440	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)]
TREA 202	16445	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)]
TREA 202	16449	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)]
TREA 202	16890	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)]
TREA 202	17110	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)]
TREA 202	17120	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)]
TREA 202	18505	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]
TREA 202	18510	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]
TREA 202	18530	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]
TREA 202	18550	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]
TREA 202	18560	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]
TREA 202	18565	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]

SI Id	Sequence	Requirement
TREA 202	18600	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]
TREA 202	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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 202	18610	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),
TREA 202	18620	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]
TREA 202	18630	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]

SI Id	Sequence	Requirement
TREA 203	14360	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]
TREA 203	16440	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)]
TREA 203	16445	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)]
TREA 203	16449	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)]
TREA 203	16890	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)]
TREA 203	17110	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)]
TREA 203	17120	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)]
TREA 203	18505	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]

SI Id	Sequence	Requirement
TREA 203	18510	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]
TREA 203	18530	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]
TREA 203	18550	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]
TREA 203	18560	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]
TREA 203	18565	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]
TREA 203	18600	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]
TREA 203	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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 203	18610	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),

SI Id	Sequence	Requirement
TREA 203	18620	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]
TREA 203	18630	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	14360	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]
TREA 204	16440	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)]
TREA 204	16445	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)]
TREA 204	16449	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)]
TREA 204	16890	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)]
TREA 204	17110	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)]
TREA 204	17120	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)]

SI Id	Sequence	Requirement
TREA 204	18505	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]
TREA 204	18510	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]
TREA 204	18530	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]
TREA 204	18550	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]
TREA 204	18560	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]
TREA 204	18565	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]
TREA 204	18600	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]
TREA 204	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]

SI Id	Sequence	Requirement
TREA 204	18610	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),
TREA 204	18620	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]
TREA 204	18630	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	14360	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]

SI Id	Sequence	Requirement
TREA 205	16440	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)]
TREA 205	16445	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)]
TREA 205	16449	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)]
TREA 205	16890	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)]
TREA 205	17110	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)]
TREA 205	17120	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)]
TREA 205	18505	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]
TREA 205	18510	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]
TREA 205	18530	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]
TREA 205	18550	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]
TREA 205	18560	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]
TREA 205	18565	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]

SI Id	Sequence	Requirement
TREA 205	18600	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]
TREA 205	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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 205	18610	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),
TREA 205	18620	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]
TREA 205	18630	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]

SI Id	Sequence	Requirement
TREA 206	14360	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]
TREA 206	16440	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)]
TREA 206	16445	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)]
TREA 206	16449	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)]
TREA 206	16890	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)]
TREA 206	17110	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)]
TREA 206	17120	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)]
TREA 206	18505	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]

SI Id	Sequence	Requirement
TREA 206	18510	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]
TREA 206	18530	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]
TREA 206	18550	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]
TREA 206	18560	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]
TREA 206	18565	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]
TREA 206	18600	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]
TREA 206	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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 206	18610	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),

SI Id	Sequence	Requirement
TREA 206	18620	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]
TREA 206	18630	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	14360	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]
TREA 207	16440	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)]
TREA 207	16445	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. 2(A) & (B)]
TREA 207	16449	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)]
TREA 207	16890	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)]
TREA 207	17110	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)]
TREA 207	17120	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)]

SI Id	Sequence	Requirement
TREA 207	18505	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]
TREA 207	18510	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]
TREA 207	18530	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]
TREA 207	18550	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]
TREA 207	18560	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]
TREA 207	18565	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]
TREA 207	18600	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]
TREA 207	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]

SI Id	Sequence	Requirement
TREA 207	18610	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),
TREA 207	18620	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]
TREA 207	18630	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	14360	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]

SI Id	Sequence	Requirement
TREA 208	16440	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)]
TREA 208	16445	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)]
TREA 208	16449	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)]
TREA 208	16890	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)]
TREA 208	17110	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)]
TREA 208	17120	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)]
TREA 208	18505	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]
TREA 208	18510	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]
TREA 208	18530	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]
TREA 208	18550	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]
TREA 208	18560	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]
TREA 208	18565	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]

SI Id	Sequence	Requirement
TREA 208	18600	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]
TREA 208	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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 208	18610	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),
TREA 208	18620	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]
TREA 208	18630	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]

SI Id	Sequence	Requirement
TREA 209	14360	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]
TREA 209	16440	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)]
TREA 209	16445	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)]
TREA 209	16449	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)]
TREA 209	16890	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)]
TREA 209	17110	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)]
TREA 209	17120	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)]
TREA 209	18505	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]

SI Id	Sequence	Requirement
TREA 209	18510	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]
TREA 209	18530	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]
TREA 209	18550	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]
TREA 209	18560	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]
TREA 209	18565	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]
TREA 209	18600	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]
TREA 209	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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 209	18610	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),

SI Id	Sequence	Requirement
TREA 209	18620	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]
TREA 209	18630	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	14360	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]
TREA 210	16440	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)]
TREA 210	16445	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. 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)]
TREA 210	16449	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)]
TREA 210	16890	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)]
TREA 210	17110	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)]
TREA 210	17120	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)]

SI Id	Sequence	Requirement
TREA 210	18505	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]
TREA 210	18510	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]
TREA 210	18530	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]
TREA 210	18550	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]
TREA 210	18560	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]
TREA 210	18565	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]
TREA 210	18600	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]
TREA 210	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]

SI Id	Sequence	Requirement
TREA 210	18610	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),
TREA 210	18620	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]
TREA 210	18630	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	17610	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)]
TREA 211	17610	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)]
TREA 211	17615	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)]
TREA 211	18480	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)]
TREA 211	18490	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)]
TREA 211	18500	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)]

SI Id	Sequence	Requirement
TREA 211	18510	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]
TREA 211	18520	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]
TREA 211	18530	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]
TREA 211	18540	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]
TREA 211	18560	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]
TREA 211	18565	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]
TREA 211	18570	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]
TREA 211	18600	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]
TREA 211	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]

SI Id	Sequence	Requirement
TREA 212	14360	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]
TREA 212	16449	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)]
TREA 212	16890	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)]
TREA 212	17110	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)]
TREA 212	17120	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)]
TREA 212	17610	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)]
TREA 212	17615	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)]
TREA 212	18505	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]

SI Id	Sequence	Requirement
TREA 212	18510	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]
TREA 212	18530	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]
TREA 212	18550	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]
TREA 212	18560	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]
TREA 212	18565	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]
TREA 212	18600	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]
TREA 212	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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	18610	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),

SI Id	Sequence	Requirement
TREA 212	18620	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]
TREA 212	18630	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	14360	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]
TREA 213	16449	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)]
TREA 213	16890	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)]
TREA 213	17110	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)]
TREA 213	17120	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)]
TREA 213	17610	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)]
TREA 213	17615	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)]

SI Id	Sequence	Requirement
TREA 213	18505	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]
TREA 213	18510	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]
TREA 213	18530	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]
TREA 213	18550	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]
TREA 213	18560	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]
TREA 213	18565	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]
TREA 213	18600	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]
TREA 213	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]

SI Id	Sequence	Requirement
TREA 213	18610	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),
TREA 213	18620	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]
TREA 213	18630	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	16440	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]
TREA 214	16445	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)]
TREA 214	16449	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]
TREA 214	16890	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]
TREA 214	17110	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)]

SI Id	Sequence	Requirement
TREA 214	18505	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)]
TREA 214	18540	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]
TREA 214	18550	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]
TREA 214	18560	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]
TREA 214	18565	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]
TREA 214	18570	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]
TREA 214	18600	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]
TREA 214	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]

SI Id	Sequence	Requirement
TREA 215	14360	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]
TREA 215	16449	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)]
TREA 215	16890	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)]
TREA 215	17110	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)]
TREA 215	17120	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)]
TREA 215	17610	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)]
TREA 215	17615	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)]
TREA 215	18505	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]

SI Id	Sequence	Requirement
TREA 215	18510	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]
TREA 215	18530	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]
TREA 215	18550	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]
TREA 215	18560	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]
TREA 215	18565	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]
TREA 215	18600	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]
TREA 215	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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	18610	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),

SI Id	Sequence	Requirement
TREA 215	18620	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]
TREA 215	18630	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	14360	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]
TREA 216	16440	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)]
TREA 216	16445	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)]
TREA 216	16449	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)]
TREA 216	16890	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)]
TREA 216	17110	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)]
TREA 216	17120	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)]

SI Id	Sequence	Requirement
TREA 216	18505	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]
TREA 216	18510	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]
TREA 216	18530	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]
TREA 216	18550	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]
TREA 216	18560	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]
TREA 216	18565	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]
TREA 216	18600	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]
TREA 216	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]

SI Id	Sequence	Requirement
TREA 216	18610	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),
TREA 216	18620	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]
TREA 216	18630	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	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)]
TREA 217	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, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
TREA 217	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)]

SI Id	Sequence	Requirement
TREA 217	14360	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]
TREA 217	16449	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)]
TREA 217	16890	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)]
TREA 217	17110	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)]
TREA 217	17120	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)]
TREA 217	18505	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]
TREA 217	18510	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]
TREA 217	18530	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]

SI Id	Sequence	Requirement
TREA 217	18550	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]
TREA 217	18560	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]
TREA 217	18565	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]
TREA 217	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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 217	18610	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),
TREA 217	18620	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]
TREA 217	18630	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]

SI Id	Sequence	Requirement
TREA 218	14360	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]
TREA 218	16440	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 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)]
TREA 218	16445	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)]
TREA 218	16449	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)]
TREA 218	16890	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)]
TREA 218	17110	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)]
TREA 218	17120	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)]
TREA 218	18505	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]

SI Id	Sequence	Requirement
TREA 218	18510	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]
TREA 218	18530	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]
TREA 218	18550	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]
TREA 218	18560	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]
TREA 218	18565	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]
TREA 218	18600	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]
TREA 218	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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 218	18610	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),

SI Id	Sequence	Requirement
TREA 218	18620	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]
TREA 218	18630	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	14360	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]
TREA 219	16440	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]
TREA 219	16445	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]
TREA 219	16449	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]
TREA 219	16890	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]
TREA 219	17110	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)]

SI Id	Sequence	Requirement
TREA 219	17120	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]
TREA 219	17150	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]
TREA 219	17150	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]
TREA 219	17155	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]
TREA 219	17160	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]
TREA 219	17180	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]
TREA 219	17190	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]
TREA 219	18505	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]
TREA 219	18510	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]
TREA 219	18600	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]
TREA 219	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]

SI Id	Sequence	Requirement
TREA 219	18610	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
TREA 219	18620	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]
TREA 219	18630	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	35750	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]
TREA 219	35760	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]
TREA 219	35770	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	14360	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]

SI Id	Sequence	Requirement
TREA 220	16440	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)]
TREA 220	16445	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]
TREA 220	16449	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]
TREA 220	16890	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]
TREA 220	17110	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]
TREA 220	17120	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)]
TREA 220	17120	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.
TREA 220	17150	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]

SI Id	Sequence	Requirement
TREA 220	17150	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]
TREA 220	17155	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]
TREA 220	17156	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]
TREA 220	17160	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]
TREA 220	17190	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]
TREA 220	18505	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]
TREA 220	18510	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]
TREA 220	18600	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]
TREA 220	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]

SI Id	Sequence	Requirement
TREA 220	18610	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
TREA 220	18620	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]
TREA 220	18630	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 220	35750	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]
TREA 220	35760	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]
TREA 220	35770	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]

SI Id	Sequence	Requirement
TREA 221	14360	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]
TREA 221	16449	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)]
TREA 221	16890	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)]
TREA 221	17110	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)]
TREA 221	17120	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)]
TREA 221	17610	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)]
TREA 221	17615	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)]
TREA 221	18505	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]

SI Id	Sequence	Requirement
TREA 221	18510	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]
TREA 221	18530	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]
TREA 221	18550	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]
TREA 221	18560	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]
TREA 221	18565	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]
TREA 221	18600	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]
TREA 221	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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 221	18610	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),

SI Id	Sequence	Requirement
TREA 221	18620	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]
TREA 221	18630	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	14360	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]
TREA 222	16449	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)]
TREA 222	16890	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)]
TREA 222	17110	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)]
TREA 222	17120	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)]
TREA 222	17610	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)]
TREA 222	17615	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)]

SI Id	Sequence	Requirement
TREA 222	18505	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]
TREA 222	18510	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]
TREA 222	18530	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]
TREA 222	18550	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]
TREA 222	18560	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]
TREA 222	18565	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]
TREA 222	18600	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]
TREA 222	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]

SI Id	Sequence	Requirement
TREA 222	18610	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),
TREA 222	18620	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]
TREA 222	18630	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 223	14360	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]

SI Id	Sequence	Requirement
TREA 223	16440	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)]
TREA 223	16445	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)]
TREA 223	16449	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)]
TREA 223	16890	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)]
TREA 223	17110	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)]
TREA 223	17120	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)]
TREA 223	18505	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]
TREA 223	18510	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]
TREA 223	18530	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]
TREA 223	18550	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]
TREA 223	18560	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]
TREA 223	18565	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]

SI Id	Sequence	Requirement
TREA 223	18600	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]
TREA 223	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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 223	18610	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),
TREA 223	18620	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]
TREA 223	18630	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	16440	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]
TREA 224	16445	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]
TREA 224	16500	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. 7007.0800, subp. 2(A) & (B)]
TREA 224	16501	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) &

SI Id	Sequence	Requirement
TREA 224	16502	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)]
TREA 224	16505	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]
TREA 224	16505	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]
TREA 224	16506	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]
TREA 224	16510	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]
TREA 224	16520	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]
TREA 224	16530	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]
TREA 224	16531	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]
TREA 224	16532	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]

SI Id	Sequence	Requirement
TREA 224	16540	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]
TREA 224	16550	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]
TREA 224	16560	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]
TREA 224	16565	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]
TREA 224	16570	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]
TREA 224	16610	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]

SI Id	Sequence	Requirement
TREA 224	16611	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]
TREA 224	16620	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]
TREA 224	16630	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	35750	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]
TREA 224	35760	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]
TREA 224	35770	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	17610	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)]
TREA 225	17615	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)]

SI Id	Sequence	Requirement
TREA 225	17777	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)]
TREA 225	27320	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)]
TREA 225	27330	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)]
TREA 225	27340	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]
TREA 225	27480	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]
TREA 225	27490	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]
TREA 225	27492	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)]
TREA 225	27493	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)]
TREA 225	27500	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]

SI Id	Sequence	Requirement
TREA 225	27505	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]
TREA 225	27510	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]
TREA 225	27515	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]
TREA 225	27520	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]
TREA 225	27530	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]
TREA 225	27540	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]
TREA 225	27550	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]

SI Id	Sequence	Requirement
TREA 225	27555	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]
TREA 225	27565	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 225	27570	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	14360	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]
TREA 226	16440	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)]

SI Id	Sequence	Requirement
TREA 226	16445	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 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)]
TREA 226	16449	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)]
TREA 226	16450	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)]
TREA 226	16451	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)]
TREA 226	16452	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]
TREA 226	16890	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)]
TREA 226	18510	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]
TREA 226	18530	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]
TREA 226	18550	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]
TREA 226	18560	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]
TREA 226	18565	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]
TREA 226	18600	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]

SI Id	Sequence	Requirement
TREA 226	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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 226	18610	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),
TREA 226	18620	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]
TREA 226	18630	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]

SI Id	Sequence	Requirement
TREA 227	14360	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]
TREA 227	16440	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)]
TREA 227	16445	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)]
TREA 227	16449	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)]
TREA 227	16450	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)]
TREA 227	16451	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)]
TREA 227	16452	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]
TREA 227	16890	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)]

SI Id	Sequence	Requirement
TREA 227	18510	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]
TREA 227	18530	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]
TREA 227	18550	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]
TREA 227	18560	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]
TREA 227	18565	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]
TREA 227	18600	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]
TREA 227	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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 227	18610	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),

SI Id	Sequence	Requirement
TREA 227	18620	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]
TREA 227	18630	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	14360	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]
TREA 228	16440	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)]
TREA 228	16445	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)]
TREA 228	16449	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)]
TREA 228	16450	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)]
TREA 228	16451	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)]

SI Id	Sequence	Requirement
TREA 228	16452	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]
TREA 228	16890	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)]
TREA 228	18510	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]
TREA 228	18530	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]
TREA 228	18550	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]
TREA 228	18560	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]
TREA 228	18565	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]
TREA 228	18600	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]
TREA 228	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]

SI Id	Sequence	Requirement
TREA 228	18610	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),
TREA 228	18620	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]
TREA 228	18630	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	14360	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]

SI Id	Sequence	Requirement
TREA 229	16440	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)]
TREA 229	16445	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 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)]
TREA 229	16449	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)]
TREA 229	16450	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)]
TREA 229	16451	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)]
TREA 229	16452	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]
TREA 229	16890	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)]
TREA 229	18510	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]
TREA 229	18530	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]
TREA 229	18550	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]
TREA 229	18560	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]
TREA 229	18565	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]

SI Id	Sequence	Requirement
TREA 229	18600	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]
TREA 229	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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 229	18610	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),
TREA 229	18620	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]
TREA 229	18630	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]

SI Id	Sequence	Requirement
TREA 230	14360	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]
TREA 230	16449	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)]
TREA 230	16450	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)]
TREA 230	16451	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)]
TREA 230	16452	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]
TREA 230	16890	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)]
TREA 230	17610	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)]
TREA 230	17615	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)]

SI Id	Sequence	Requirement
TREA 230	18510	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]
TREA 230	18530	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]
TREA 230	18550	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]
TREA 230	18560	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]
TREA 230	18565	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]
TREA 230	18600	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]
TREA 230	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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 230	18610	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),

SI Id	Sequence	Requirement
TREA 230	18620	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]
TREA 230	18630	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	2	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)]
TREA 231	3	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)]
TREA 231	14360	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]
TREA 231	16449	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)]
TREA 231	16452	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]
TREA 231	16890	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)]

SI Id	Sequence	Requirement
TREA 231	17110	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) &
TREA 231	17120	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)]
TREA 231	18510	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]
TREA 231	18530	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]
TREA 231	18550	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]
TREA 231	18560	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]
TREA 231	18565	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]
TREA 231	18600	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]
TREA 231	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]

SI Id	Sequence	Requirement
TREA 231	18610	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),
TREA 231	18620	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]
TREA 231	18630	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	2	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)]
TREA 232	3	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)]

SI Id	Sequence	Requirement
TREA 232	14360	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]
TREA 232	16449	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)]
TREA 232	16452	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]
TREA 232	16890	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)]
TREA 232	17110	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)]
TREA 232	17120	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)]
TREA 232	18510	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]
TREA 232	18530	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]

SI Id	Sequence	Requirement
TREA 232	18550	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]
TREA 232	18560	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]
TREA 232	18565	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]
TREA 232	18600	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]
TREA 232	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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 232	18610	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),
TREA 232	18620	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]
TREA 232	18630	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]

SI Id	Sequence	Requirement
TREA 233	2	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)]
TREA 233	3	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)]
TREA 233	14360	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]
TREA 233	16449	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)]
TREA 233	16452	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]
TREA 233	16890	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)]
TREA 233	17110	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)]
TREA 233	17120	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)]

SI Id	Sequence	Requirement
TREA 233	18510	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]
TREA 233	18530	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]
TREA 233	18550	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]
TREA 233	18560	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]
TREA 233	18565	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]
TREA 233	18600	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]
TREA 233	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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 233	18610	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),

SI Id	Sequence	Requirement
TREA 233	18620	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]
TREA 233	18630	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 233	25000	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)]
TREA 233	250001	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	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)]
TREA 234	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. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
TREA 234	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)]

SI Id	Sequence	Requirement
TREA 234	14360	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]
TREA 234	16449	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)]
TREA 234	16452	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]
TREA 234	16890	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)]
TREA 234	17110	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)]
TREA 234	17120	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)]
TREA 234	18510	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]
TREA 234	18530	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]

SI Id	Sequence	Requirement
TREA 234	18550	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]
TREA 234	18560	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]
TREA 234	18565	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]
TREA 234	18600	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]
TREA 234	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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 234	18610	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),
TREA 234	18620	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]
TREA 234	18630	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]

SI Id	Sequence	Requirement
		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.
TREA 234	25000	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
		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.
TREA 234	250001	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
TREA 235	2	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)]
TREA 235	3	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)]
TREA 235	14360	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]
TREA 235	16449	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)]
TREA 235	16452	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]

SI Id	Sequence	Requirement
TREA 235	16890	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)]
TREA 235	17110	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)]
TREA 235	17120	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)]
TREA 235	18510	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]
TREA 235	18530	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]
TREA 235	18550	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]
TREA 235	18560	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]
TREA 235	18565	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]
TREA 235	18600	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]
TREA 235	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]

SI Id	Sequence	Requirement
TREA 235	18610	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),
TREA 235	18620	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]
TREA 235	18630	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	25000	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)]
TREA 235	250001	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	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)]
TREA 236	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)]

SI Id	Sequence	Requirement
TREA 236	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)]
TREA 236	14360	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]
TREA 236	16449	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)]
TREA 236	16452	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]
TREA 236	16890	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)]
TREA 236	17110	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)]
TREA 236	17120	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)]
TREA 236	18510	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]

SI Id	Sequence	Requirement
TREA 236	18530	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]
TREA 236	18550	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]
TREA 236	18560	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]
TREA 236	18565	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]
TREA 236	18600	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]
TREA 236	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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 236	18610	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),
TREA 236	18620	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]

SI Id	Sequence	Requirement
TREA 236	18630	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	25000	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)]
TREA 236	250001	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 237	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)]
TREA 237	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)]
TREA 237	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)]

SI Id	Sequence	Requirement
TREA 237	14360	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]
TREA 237	16449	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)]
TREA 237	16452	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]
TREA 237	16890	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)]
TREA 237	17110	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)]
TREA 237	17120	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)]
TREA 237	18510	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]
TREA 237	18530	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]

SI Id	Sequence	Requirement
TREA 237	18550	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]
TREA 237	18560	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]
TREA 237	18565	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]
TREA 237	18600	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]
TREA 237	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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 237	18610	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),
TREA 237	18620	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]
TREA 237	18630	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]

SI Id	Sequence	Requirement
		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.
TREA 237	25000	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
		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.
TREA 237	250001	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
		The Permittee is authorized to construct and operate TREA 238 per the specifications listed in Appendix L.
TREA 238	1	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)]
		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.
TREA 238	2	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)]
		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.
TREA 238	3	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)]
		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.
TREA 238	14360	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]

SI Id	Sequence	Requirement
TREA 238	16449	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)]
TREA 238	16452	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]
TREA 238	16890	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)]
TREA 238	17110	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)]
TREA 238	17120	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)]
TREA 238	18510	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]
TREA 238	18530	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]
TREA 238	18550	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]
TREA 238	18560	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]
TREA 238	18565	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]
TREA 238	18600	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]
TREA 238	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]

SI Id	Sequence	Requirement
TREA 238	18610	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),
TREA 238	18620	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]
TREA 238	18630	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	25000	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)]
TREA 238	250001	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	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)]
TREA 239	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 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)]

SI Id	Sequence	Requirement
TREA 239	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)]
TREA 239	14360	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]
TREA 239	16449	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)]
TREA 239	16452	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]
TREA 239	16890	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)]
TREA 239	17110	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)]
TREA 239	17120	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)]
TREA 239	18510	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]

SI Id	Sequence	Requirement
TREA 239	18530	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]
TREA 239	18550	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]
TREA 239	18560	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]
TREA 239	18565	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]
TREA 239	18600	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]
TREA 239	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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 239	18610	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),
TREA 239	18620	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]

SI Id	Sequence	Requirement
TREA 239	18630	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	25000	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)]
TREA 239	250001	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	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)]
TREA 240	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)]
TREA 240	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)]

SI Id	Sequence	Requirement
TREA 240	14360	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]
TREA 240	16449	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)]
TREA 240	16452	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]
TREA 240	16890	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)]
TREA 240	17110	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)]
TREA 240	17120	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)]
TREA 240	18510	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]
TREA 240	18530	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]

SI Id	Sequence	Requirement
TREA 240	18550	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]
TREA 240	18560	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]
TREA 240	18565	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]
TREA 240	18600	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]
TREA 240	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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 240	18610	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),
TREA 240	18620	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]
TREA 240	18630	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]

SI Id	Sequence	Requirement
		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.
TREA 240	25000	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
		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.
TREA 240	250001	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
		The Permittee is authorized to construct and operate TREA 241 per the specifications listed in Appendix L.
TREA 241	1	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)]
		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.
TREA 241	2	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)]
		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.
TREA 241	3	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)]
		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.
TREA 241	14360	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]

SI Id	Sequence	Requirement
TREA 241	16449	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)]
TREA 241	16452	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]
TREA 241	16890	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)]
TREA 241	17110	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)]
TREA 241	17120	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)]
TREA 241	18510	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]
TREA 241	18530	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]
TREA 241	18550	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]
TREA 241	18560	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]
TREA 241	18565	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]
TREA 241	18600	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]
TREA 241	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]

SI Id	Sequence	Requirement
TREA 241	18610	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),
TREA 241	18620	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]
TREA 241	18630	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	25000	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.
TREA 241	250001	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
TREA 241	250001	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.
TREA 241	250001	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
TREA 242	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)]
TREA 242	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)]

SI Id	Sequence	Requirement
TREA 242	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)]
TREA 242	14360	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]
TREA 242	16449	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)]
TREA 242	16452	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]
TREA 242	16890	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)]
TREA 242	17110	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)]
TREA 242	17120	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)]
TREA 242	18510	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]

SI Id	Sequence	Requirement
TREA 242	18530	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]
TREA 242	18550	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]
TREA 242	18560	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]
TREA 242	18565	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]
TREA 242	18600	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]
TREA 242	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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 242	18610	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),
TREA 242	18620	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]

SI Id	Sequence	Requirement
TREA 242	18630	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	25000	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)]
TREA 242	250001	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	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)]
TREA 243	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)]
TREA 243	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)]

SI Id	Sequence	Requirement
TREA 243	14360	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]
TREA 243	16449	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)]
TREA 243	16452	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]
TREA 243	16890	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)]
TREA 243	17110	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)]
TREA 243	17120	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)]
TREA 243	18510	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]
TREA 243	18530	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]

SI Id	Sequence	Requirement
TREA 243	18550	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]
TREA 243	18560	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]
TREA 243	18565	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]
TREA 243	18600	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]
TREA 243	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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 243	18610	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),
TREA 243	18620	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]
TREA 243	18630	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]

SI Id	Sequence	Requirement
		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.
TREA 243	25000	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
		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.
TREA 243	250001	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
		The Permittee is authorized to construct and operate TREA 244 per the specifications listed in Appendix L.
TREA 244	1	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)]
		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)]
TREA 244	2	
		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)]
TREA 244	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]
TREA 244	14360	

SI Id	Sequence	Requirement
TREA 244	16449	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)]
TREA 244	16452	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]
TREA 244	16890	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)]
TREA 244	17110	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)]
TREA 244	17120	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)]
TREA 244	18510	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]
TREA 244	18530	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]
TREA 244	18550	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]
TREA 244	18560	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]
TREA 244	18565	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]
TREA 244	18600	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]
TREA 244	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]

SI Id	Sequence	Requirement
TREA 244	18610	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),
TREA 244	18620	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]
TREA 244	18630	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	25000	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)]
TREA 244	250001	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	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)]
TREA 245	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)]

SI Id	Sequence	Requirement
TREA 245	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)]
TREA 245	14360	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]
TREA 245	16449	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)]
TREA 245	16452	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]
TREA 245	16890	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)]
TREA 245	17110	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)]
TREA 245	17120	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)]
TREA 245	18510	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]

SI Id	Sequence	Requirement
TREA 245	18530	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]
TREA 245	18550	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]
TREA 245	18560	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]
TREA 245	18565	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]
TREA 245	18600	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]
TREA 245	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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 245	18610	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),
TREA 245	18620	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]

SI Id	Sequence	Requirement
TREA 245	18630	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	25000	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)]
TREA 245	250001	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	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)]
TREA 246	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 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)]
TREA 246	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)]

SI Id	Sequence	Requirement
TREA 246	14360	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]
TREA 246	16449	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)]
TREA 246	16452	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]
TREA 246	16890	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)]
TREA 246	17110	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)]
TREA 246	17120	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)]
TREA 246	18510	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]
TREA 246	18530	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]

SI Id	Sequence	Requirement
TREA 246	18550	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]
TREA 246	18560	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]
TREA 246	18565	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]
TREA 246	18600	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]
TREA 246	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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 246	18610	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),
TREA 246	18620	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]
TREA 246	18630	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]

SI Id	Sequence	Requirement
		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.
TREA 246	25000	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
		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.
TREA 246	250001	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
		The Permittee is authorized to construct and operate TREA 247 per the specifications listed in Appendix L.
TREA 247	1	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)]
		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.
TREA 247	2	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)]
		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.
TREA 247	3	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)]
		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.
TREA 247	14360	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]

SI Id	Sequence	Requirement
TREA 247	16449	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)]
TREA 247	16452	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]
TREA 247	16890	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)]
TREA 247	17110	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)]
TREA 247	17120	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)]
TREA 247	18510	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]
TREA 247	18530	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]
TREA 247	18550	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]
TREA 247	18560	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]
TREA 247	18565	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]
TREA 247	18600	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]
TREA 247	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]

SI Id	Sequence	Requirement
TREA 247	18610	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),
TREA 247	18620	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]
TREA 247	18630	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	25000	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.
TREA 247	250001	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
TREA 247	250001	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.
TREA 247	250001	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
TREA 248	2	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)]
TREA 248	3	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)]

SI Id	Sequence	Requirement
TREA 248	14360	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]
TREA 248	16449	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)]
TREA 248	16452	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]
TREA 248	16890	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)]
TREA 248	17110	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)]
TREA 248	17120	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)]
TREA 248	18510	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]
TREA 248	18530	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]

SI Id	Sequence	Requirement
TREA 248	18550	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]
TREA 248	18560	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]
TREA 248	18565	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]
TREA 248	18600	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]
TREA 248	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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 248	18610	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),
TREA 248	18620	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]
TREA 248	18630	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]

SI Id	Sequence	Requirement
		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.
TREA 248	25000	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
		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.
TREA 248	250001	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
TREA 249	2	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)]
TREA 249	3	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)]
TREA 249	14360	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]
TREA 249	16449	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)]
TREA 249	16452	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]

SI Id	Sequence	Requirement
TREA 249	16890	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)]
TREA 249	17110	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)]
TREA 249	17120	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)]
TREA 249	18510	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]
TREA 249	18530	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]
TREA 249	18550	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]
TREA 249	18560	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]
TREA 249	18565	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]
TREA 249	18600	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]
TREA 249	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]

SI Id	Sequence	Requirement
TREA 249	18610	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),
TREA 249	18620	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]
TREA 249	18630	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	25000	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)]
TREA 249	250001	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 250	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)]
TREA 250	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)]

SI Id	Sequence	Requirement
TREA 250	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)]
TREA 250	14360	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]
TREA 250	16449	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)]
TREA 250	16452	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]
TREA 250	16890	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)]
TREA 250	17110	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)]
TREA 250	17120	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)]
TREA 250	18510	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]

SI Id	Sequence	Requirement
TREA 250	18530	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]
TREA 250	18550	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]
TREA 250	18560	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]
TREA 250	18565	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]
TREA 250	18600	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]
TREA 250	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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 250	18610	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),
TREA 250	18620	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]

SI Id	Sequence	Requirement
TREA 250	18630	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	25000	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)]
TREA 250	250001	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	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)]
TREA 251	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 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)]
TREA 251	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)]

SI Id	Sequence	Requirement
TREA 251	14360	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]
TREA 251	16449	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)]
TREA 251	16452	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]
TREA 251	16890	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)]
TREA 251	17110	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)]
TREA 251	17120	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)]
TREA 251	18510	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]
TREA 251	18530	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]

SI Id	Sequence	Requirement
TREA 251	18550	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]
TREA 251	18560	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]
TREA 251	18565	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]
TREA 251	18600	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]
TREA 251	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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 251	18610	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),
TREA 251	18620	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]
TREA 251	18630	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]

SI Id	Sequence	Requirement
		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.
TREA 251	25000	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
		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.
TREA 251	250001	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
		The Permittee is authorized to construct and operate TREA 252 per the specifications listed in Appendix L.
TREA 252	1	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)]
		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.
TREA 252	2	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)]
		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.
TREA 252	3	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)]
		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.
TREA 252	14360	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]

SI Id	Sequence	Requirement
TREA 252	16449	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)]
TREA 252	16452	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]
TREA 252	16890	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)]
TREA 252	17110	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)]
TREA 252	17120	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)]
TREA 252	18510	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]
TREA 252	18530	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]
TREA 252	18550	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]
TREA 252	18560	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]
TREA 252	18565	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]
TREA 252	18600	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]
TREA 252	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]

SI Id	Sequence	Requirement
TREA 252	18610	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),
TREA 252	18620	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]
TREA 252	18630	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	25000	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)]
TREA 252	250001	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	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)]
TREA 253	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)]

SI Id	Sequence	Requirement
TREA 253	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)]
TREA 253	14360	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]
TREA 253	16449	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)]
TREA 253	16452	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]
TREA 253	16890	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)]
TREA 253	17110	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)]
TREA 253	17120	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)]
TREA 253	18510	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]

SI Id	Sequence	Requirement
TREA 253	18530	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]
TREA 253	18550	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]
TREA 253	18560	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]
TREA 253	18565	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]
TREA 253	18600	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]
TREA 253	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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 253	18610	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),
TREA 253	18620	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]

SI Id	Sequence	Requirement
TREA 253	18630	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	25000	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)]
TREA 253	250001	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	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)]
TREA 254	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)]
TREA 254	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)]

SI Id	Sequence	Requirement
TREA 254	14360	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]
TREA 254	16449	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)]
TREA 254	16452	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]
TREA 254	16890	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)]
TREA 254	17110	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)]
TREA 254	17120	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)]
TREA 254	18510	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]
TREA 254	18530	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]

SI Id	Sequence	Requirement
TREA 254	18550	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]
TREA 254	18560	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]
TREA 254	18565	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]
TREA 254	18600	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]
TREA 254	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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 254	18610	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),
TREA 254	18620	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]
TREA 254	18630	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]

SI Id	Sequence	Requirement
		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.
TREA 254	25000	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
		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.
TREA 254	250001	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
		The Permittee is authorized to construct and operate TREA 255 per the specifications listed in Appendix L.
TREA 255	1	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)]
		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.
TREA 255	2	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)]
		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.
TREA 255	3	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)]
		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.
TREA 255	14360	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]

SI Id	Sequence	Requirement
TREA 255	16449	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)]
TREA 255	16452	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]
TREA 255	16890	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)]
TREA 255	17110	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)]
TREA 255	17120	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)]
TREA 255	18510	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]
TREA 255	18530	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]
TREA 255	18550	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]
TREA 255	18560	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]
TREA 255	18565	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]
TREA 255	18600	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]
TREA 255	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]

SI Id	Sequence	Requirement
TREA 255	18610	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),
TREA 255	18620	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]
TREA 255	18630	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	25000	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)]
TREA 255	250001	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	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)]
TREA 256	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)]

SI Id	Sequence	Requirement
TREA 256	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)]
TREA 256	14360	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]
TREA 256	16449	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)]
TREA 256	16452	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]
TREA 256	16890	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)]
TREA 256	17110	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)]
TREA 256	17120	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)]
TREA 256	18510	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]

SI Id	Sequence	Requirement
TREA 256	18530	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]
TREA 256	18550	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]
TREA 256	18560	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]
TREA 256	18565	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]
TREA 256	18600	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]
TREA 256	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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 256	18610	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),
TREA 256	18620	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]

SI Id	Sequence	Requirement
TREA 256	18630	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 256	25000	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)]
TREA 256	250001	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	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)]
TREA 257	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)]
TREA 257	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)]

SI Id	Sequence	Requirement
TREA 257	14360	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]
TREA 257	16449	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)]
TREA 257	16452	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]
TREA 257	16890	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)]
TREA 257	17110	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)]
TREA 257	17120	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)]
TREA 257	18510	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]
TREA 257	18530	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]

SI Id	Sequence	Requirement
TREA 257	18550	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]
TREA 257	18560	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]
TREA 257	18565	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]
TREA 257	18600	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]
TREA 257	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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 257	18610	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),
TREA 257	18620	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]
TREA 257	18630	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]

SI Id	Sequence	Requirement
		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.
TREA 257	25000	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
		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.
TREA 257	250001	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
		The Permittee is authorized to construct and operate TREA 258 per the specifications listed in Appendix L.
TREA 258	1	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)]
		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.
TREA 258	2	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. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 2(A) & (B)]
		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.
TREA 258	3	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)]
		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.
TREA 258	14360	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]

SI Id	Sequence	Requirement
TREA 258	16449	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)]
TREA 258	16452	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]
TREA 258	16890	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)]
TREA 258	17110	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)]
TREA 258	17120	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)]
TREA 258	18510	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]
TREA 258	18530	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]
TREA 258	18550	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]
TREA 258	18560	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]
TREA 258	18565	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]
TREA 258	18600	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]
TREA 258	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]

SI Id	Sequence	Requirement
TREA 258	18610	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),
TREA 258	18620	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]
TREA 258	18630	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	25000	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)]
TREA 258	250001	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	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)]
TREA 259	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)]

SI Id	Sequence	Requirement
TREA 259	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. 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)]
TREA 259	14360	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]
TREA 259	16449	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)]
TREA 259	16452	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]
TREA 259	16890	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)]
TREA 259	17110	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)]
TREA 259	17120	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)]
TREA 259	18510	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]

SI Id	Sequence	Requirement
TREA 259	18530	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]
TREA 259	18550	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]
TREA 259	18560	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]
TREA 259	18565	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]
TREA 259	18600	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]
TREA 259	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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 259	18610	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),
TREA 259	18620	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]

SI Id	Sequence	Requirement
TREA 259	18630	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	25000	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)]
TREA 259	250001	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	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)]
TREA 260	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)]
TREA 260	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)]

SI Id	Sequence	Requirement
TREA 260	14360	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]
TREA 260	16449	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)]
TREA 260	16452	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]
TREA 260	16890	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)]
TREA 260	17110	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)]
TREA 260	17120	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)]
TREA 260	18510	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]
TREA 260	18530	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]

SI Id	Sequence	Requirement
TREA 260	18550	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]
TREA 260	18560	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]
TREA 260	18565	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]
TREA 260	18600	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]
TREA 260	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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 260	18610	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),
TREA 260	18620	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]
TREA 260	18630	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]

SI Id	Sequence	Requirement
		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.
TREA 260	25000	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
		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.
TREA 260	250001	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
		The Permittee is authorized to construct and operate TREA 261 per the specifications listed in Appendix L.
TREA 261	1	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)]
		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)]
TREA 261	2	
		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)]
TREA 261	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]
TREA 261	14360	

SI Id	Sequence	Requirement
TREA 261	16449	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)]
TREA 261	16452	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]
TREA 261	16890	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)]
TREA 261	17110	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)]
TREA 261	17120	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)]
TREA 261	18510	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]
TREA 261	18530	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]
TREA 261	18550	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]
TREA 261	18560	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]
TREA 261	18565	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]
TREA 261	18600	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]
TREA 261	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]

SI Id	Sequence	Requirement
TREA 261	18610	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),
TREA 261	18620	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]
TREA 261	18630	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	25000	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)]
TREA 261	250001	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	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)]
TREA 262	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)]

SI Id	Sequence	Requirement
TREA 262	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)]
TREA 262	14360	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]
TREA 262	16449	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)]
TREA 262	16452	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]
TREA 262	16890	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)]
TREA 262	17110	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)]
TREA 262	17120	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)]
TREA 262	18510	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]

SI Id	Sequence	Requirement
TREA 262	18530	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]
TREA 262	18550	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]
TREA 262	18560	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]
TREA 262	18565	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]
TREA 262	18600	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]
TREA 262	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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 262	18610	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),
TREA 262	18620	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]

SI Id	Sequence	Requirement
TREA 262	18630	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	25000	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)]
TREA 262	250001	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 264	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)]
TREA 264	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)]
TREA 264	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)]

SI Id	Sequence	Requirement
TREA 264	14360	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]
TREA 264	16449	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)]
TREA 264	16452	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]
TREA 264	16890	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)]
TREA 264	17110	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)]
TREA 264	17120	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)]
TREA 264	18510	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]
TREA 264	18530	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]

SI Id	Sequence	Requirement
TREA 264	18550	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]
TREA 264	18560	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]
TREA 264	18565	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]
TREA 264	18600	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]
TREA 264	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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 264	18610	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),
TREA 264	18620	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]
TREA 264	18630	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]

SI Id	Sequence	Requirement
		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.
TREA 264	25000	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
		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.
TREA 264	250001	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
		The Permittee is authorized to construct and operate TREA 265 per the specifications listed in Appendix L.
TREA 265	1	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)]
		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.
TREA 265	2	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)]
		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.
TREA 265	3	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)]
		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.
TREA 265	14360	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]

SI Id	Sequence	Requirement
TREA 265	16449	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)]
TREA 265	16452	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]
TREA 265	16890	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)]
TREA 265	17110	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)]
TREA 265	17120	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)]
TREA 265	18510	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]
TREA 265	18530	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]
TREA 265	18550	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]
TREA 265	18560	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]
TREA 265	18565	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]
TREA 265	18600	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]
TREA 265	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]

SI Id	Sequence	Requirement
TREA 265	18610	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),
		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]
		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]
		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)]
TREA 265	250001	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	2	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)]
TREA 266	3	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 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)]

SI Id	Sequence	Requirement
TREA 266	14360	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]
TREA 266	16449	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)]
TREA 266	16452	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]
TREA 266	16890	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)]
TREA 266	17110	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)]
TREA 266	17120	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)]
TREA 266	18510	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]
TREA 266	18530	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]

SI Id	Sequence	Requirement
TREA 266	18550	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]
TREA 266	18560	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]
TREA 266	18565	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]
TREA 266	18600	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]
TREA 266	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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 266	18610	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),
TREA 266	18620	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]
TREA 266	18630	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]

SI Id	Sequence	Requirement
		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.
TREA 266	25000	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
		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.
TREA 266	250001	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
		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]
TREA 267	14360	
TREA 267	16449	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. 7007.0800, subp. 2(A) & (B)]
		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]
TREA 267	16452	
TREA 267	16890	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)]
TREA 267	17110	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)]
TREA 267	17120	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)]

SI Id	Sequence	Requirement
TREA 267	17610	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)]
TREA 267	17615	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)]
TREA 267	18510	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]
TREA 267	18530	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]
TREA 267	18550	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]
TREA 267	18560	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]
TREA 267	18565	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]
TREA 267	18600	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]
TREA 267	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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]

SI Id	Sequence	Requirement
TREA 267	18610	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),
TREA 267	18620	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]
TREA 267	18630	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	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)]
TREA 269	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)]
TREA 269	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)]

SI Id	Sequence	Requirement
TREA 269	14360	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]
TREA 269	16449	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)]
TREA 269	16452	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]
TREA 269	16890	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)]
TREA 269	17110	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)]
TREA 269	17120	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)]
TREA 269	18510	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]
TREA 269	18530	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]

SI Id	Sequence	Requirement
TREA 269	18550	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]
TREA 269	18560	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]
TREA 269	18565	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]
TREA 269	18600	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]
TREA 269	18605	Semiannual inspections: At least once semiannually, or more frequently if required by the manufacturer's specifications, the Permittee must inspect the 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 269	18610	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),
TREA 269	18620	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]
TREA 269	18630	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]

SI Id	Sequence	Requirement
		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.
TREA 269	25000	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]
		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.
TREA 269	250001	The notification shall be submitted electronically on Form CS-02. [Minn. R. 7007.0800, subp. 16(L)]

Attachment 3 – Cyclone inherent process equipment determination

Tunno, Brett J

From: Campbell, Stephani L
Sent: Monday, June 26, 2023 2:10 PM
To: Nelson, Derek (MPCA); Remer, Sarah (MPCA)
Cc: Bartovich, Chrissy L; Tunno, Brett J
Subject: Updated Emergency Generator Information and Cyclone Write up.
Attachments: Minntac Revised PTE Calculations - USS comments 062623.xlsx; MPCA edits of Summary of Federal Regulations and Applicability-Feb 2023-USS comments 062623.xlsx; SI details - Updated 022823- USS comments 062623.xlsx

Derek

Attached are revisions for the emergency generator sizes and SI details for Minntac, along with the applicable regs for each. These changes are in red.

Below is the description of purpose of the cyclones on the indurating furnaces as they relate to being inherent process equipment.

USS Minntac Cyclone Purpose

The primary function of the cyclones is to protect the fans from excessive wear and tear from the larger particulate matter leaving the grate section of the furnace as the fans pull the air through the greenballs as they begin their drying and oxidation process. The cyclones prevent excessive wear and increased maintenance and downtime. They extend fan life. The air through the grate is pulled from the fans through the cyclones, then passes through the fan then into the scrubber. Minntac has wet venturi scrubbers to ensure and maintain compliance with IPER and the MACT particulate emissions limit. The scrubbers are stand-alone control equipment used to meet the MACT limits, similar to other venturi rod deck scrubbers utilized at Minntac on other pellet handling sources. The cyclones' design function is to remove larger particulate matter in order to reduce wear on the corresponding fans. Cyclone use is not necessary to ensure compliance with Minntac's particulate emission limits.

- 1. Is the primary purpose of the equipment to control air pollution?** No. The primary function of the cyclones is to protect the fans from excessive wear and tear from iron bearing material leaving the grate section of the furnace as the fans pull the air through the greenballs as they begin their drying and oxidation process.
- 2. Where the equipment is recovering product, how do the cost savings from the product recovery compare to the cost of equipment?** There are two factors to consider regarding the process benefit of the cyclones. First, there is the direct recovery of the material. In reviewing some data from typical production years, the average amount recovered with the cyclones is estimated to be 207,500 tons/year. Because USS does not publicize cost/ton of pellet, in order to keep this correspondence public and to evaluate the cost of that material, we used a published 3rd Quarter 2020 earnings release from another North American pellet producer that identified a cost/ton of pellet produced of \$67.63/ton. This equates to a material recovery benefit of approximately \$14,033,225/year. The second and more significant benefit of the cyclones is minimizing wear and tear on the process fans. If the cyclones were not present, this would result in increased downtime to repair the fans which would result in substantial pellet production loss. Minntac produces approximately 47,000 tons/day. Therefore, every day of lost production would result in a significant cost to the facility. The cyclones have never been replaced. However, Minntac has a typical annual spend of approximately \$180,000/year in parts and labor to maintain them. Note that the cost savings from recovering material alone as noted above is greater than the cost of maintaining the cyclones. The cost of new cyclones for the fans at one Line are approximately \$1.2 million, but they have never been replaced as they are integral to the furnace.
- 3. Would the equipment be installed if no air quality regulations are in place?** Yes. The cyclones recover valuable product, prevent excessive wear, and reduce maintenance costs and furnace downtime. They extend fan life. They

are original to the design of the indurating furnaces that were installed in the late 1960's to mid 1970's – well before the furnaces were subject to the current air regulatory requirements - and have never been replaced.

Stephani Campbell
Minnesota Ore Operations
218-778-8684

Attachment 4 – Cam plans

**Compliance Assurance Monitoring Plan
Wet Scrubbers for SO₂ Emissions Control
from the Grate Kilns (EQUIs 146, 279, 280, 3, and 179)**

1. Background

A. Source Information

Facility: United States Steel Corporation,
Minnesota Ore Operations – Minntac
8771 Park Ridge Drive
Mountain Iron, MN 55753

Emission Unit(s) Description: Indurating Waste Gas Line 3
Indurating Waste Gas Line 4
Indurating Waste Gas Line 5
Indurating Waste Gas Line 6
Indurating Waste Gas Line 7

Emission Unit(s) IDs – Lines 3,4,5,6,7: EQUIs 146, 279, 280, 3, 179
Stack IDs: STRUs 225, 208, 60, 155, 69
APCD IDs: TREAs 224, 37, 38, 143, 151

B. Applicable Regulation, Emissions Limit, and Monitoring Requirements

Emission Limit: Regional Haze FIP weighted average SO₂ lb/hr limits (40 CFR 52.1235(b)(2)iii):
498 lb/hr SO₂ – flux pellet
630 lb/hr SO₂ – acid/flux combo pellet
800 lb/hr SO₂ – acid pellet

Monitoring Requirements: SO₂ CEMS (EQUIs 257, 259, 260, 262, 264) and Stack Flow Analyzer

C. Control Technology: Wet Scrubbers

II. Monitoring Approach

	Indicator No. 1
I. Indicator	SO ₂ CEM and stack flow analyzer
Measurement Approach:	CEMS will continually monitor SO ₂ concentration in ppm and mass emission rate in lbs/hr.
II. Indicator Range	An excursion is defined as SO ₂ emissions in excess of the applicable SO ₂ 30-day average. Excursions may trigger an inspection/ investigation to determine the cause, corrective action as necessary,

	and a reporting requirement in the Excess Emissions Report.
III. Performance Criteria	
A. Data Representativeness	The CEMS will measure SO ₂ at the waste gas stack and a stack flow analyzer will measure the stack flow rate to determine a mass emission rate.
B. Verification of Operational Status	A Data Acquisition System is utilized for the CEMS system and will indicate if the analyzer is out of range.
C. QA/QC Practices and Criteria	The CEMS will be installed, certified, and operated according to procedure identified in MN Rules 7017.1002-.1220. Daily calibration checks will be performed, Gas Cylinder Audits and RATA will be conducted per the requirements.
D. Monitoring Frequency	The SO ₂ will be monitored continuously via the CEMS. Data will be recorded each minute and calculated into an hourly value in the Data Acquisition System. 30-day rolling average SO ₂ lb/hr values will be calculated.
Data Collection Procedures	Data will be collected and recorded by a Data Acquisition System continuously and in accordance with MN Rules 7017.1002-.1220

III. Monitoring Approach Justification

(a) Background

The source is equipped with Wet Scrubbers to remove SO₂. The CEMS and stack flow analyzer provide real-time data pertaining to scrubber performance.

(b) Rationale for Selection of Performance Indicators

CEMS and stack flow analyzer provide the most accurate and real-time data to measure performance. The analyzer measures the values instantaneously and records a value each minute.

(c) Rationale for Selection of Indicator Ranges

The indicator range is based upon historical emissions utilizing the CEMS.

(d) Control device operating parameter data collected used to justify the proposed indicator range.
Not Applicable

(e) Test plan and schedule for obtaining data if performance test data are not available.
Not Applicable

(f) Implementation plan.

The CEMS and stack flow analyzer will be installed, certified and operated per applicable requirements in MN Rules 7017.

**Compliance Assurance Monitoring Plan
Fabric Filter (Baghouse) for Particulate Emissions Control
from the Ore Conveyor Transfer 005 Feed (EQUI 52) and Disch (EQUI 53)**

1. Background

A. Source Information

Facility:	United States Steel Corporation, Minnesota Ore Operations – Minntac 8771 Park Ridge Drive Mountain Iron, MN 55753
Emission Unit(s) Description:	Fabric Filters (Baghouse) controlled sources
Emission Unit ID:	EQUI 52 (Ore Conveyor Transfer 005 Feed)
Stack ID:	STRU 219
APCD ID:	TREA 219
Emission Unit ID:	EQUI 53 (Ore Conveyor Transfer 005 Disch)
Stack ID:	STRU 179
APCD ID:	TREA 220

B. Applicable Regulation, Emissions Limit, and Monitoring Requirements

Emission Limit:	0.01 gr/dscf PM10 limit (Title 1 Condition 40 CFR 52.21)
Monitoring Requirements:	Baghouse Pressure Drop (TREAs 219-220)

C. Control Technology: Fabric Filters (Baghouse)

II. Monitoring Approach

	Indicator No. 1
I. Indicator	Pressure drop across each baghouse
Measurement Approach:	Pressure drop will be measured once daily on each baghouse. Low pressure drop across the baghouse may be an indicator of potential leaks. Baghouse leak detection will be monitored and recorded every 15 minutes.
II. Indicator Range	dP greater than or equal to 0.5 in w.c. Two (2) consecutive baghouse leak detection readings above the alarm setpoint will generate an alarm. Excursions will trigger an investigation, and corrective action may be initiated if necessary.

III. Performance Criteria	
A. Data Representativeness	Pressure drop will be recorded daily when the unit is operating.
B. Verification of Operational Status	The data collection system will record if the emission unit is operating.
C. QA/QC Practices and Criteria	The differential pressure cells will be calibrated annually.
D. Monitoring Frequency	Daily
Data Collection Procedures	Data will be collected and recorded by a data acquisition system daily.
Averaging Period	N/A

III. Monitoring Approach Justification

(a) Background

The source is equipped with a baghouse to control particulate emissions.

(b) Rationale for Selection of Performance Indicators

Pressure drop is a key indicator of proper baghouse performance.

(c) Rationale for Selection of Indicator Ranges

The indicator range is based upon manufacturer recommendations and performance testing.

(d) Control device operating parameter data collected used to justify the proposed indicator range.

Pressure drop based on manufacturer recommendations.

(e) Test plan and schedule for obtaining data if performance test data are not available.

Not Applicable

(f) Implementation plan.

N/A

Attachment 5 – U.S Steel Minntac contractor historical throughput data

Minntac - Contractor Activity Throughputs - 2006 to 2024

		12-Month Rolling Throughput (tons)		
		Metallic		Non-Metallic
Year	Month	Non-Fines	Fines	
2006	January	0	0	0
	February	0	0	0
	March	0	0	0
	April	0	0	0
	May	0	0	158,893
	June	0	0	439,402
	July	0	0	705,888
	August	0	0	970,117
	September	0	0	1,312,704
	October	0	0	1,571,388
	November	0	0	1,668,355
	December	0	0	1,668,355
2007	January	0	0	1,228,953
	February	0	0	962,467
	March	0	0	698,238
	April	0	0	355,651
	May	0	0	292,470
	June	0	0	440,451
	July	0	0	653,948
	August	0	0	759,058
	September	0	0	892,894
	October	0	0	892,894
	November	0	0	892,894
	December	0	0	892,894
2008	January	0	0	452,443
	February	0	0	238,946
	March	0	0	133,836
	April	0	0	0
	May	0	0	184,280
	June	0	0	466,777
	July	0	0	756,689
	August	0	0	958,752
	September	0	0	1,107,901
	October	0	0	1,240,362
	November	0	0	1,240,362
	December	0	0	1,240,362
2009	January	0	0	773,585
	February	0	0	483,673
	March	0	0	281,610
	April	0	0	132,461
	May	0	0	0
	June	0	0	0
	July	0	0	0
	August	0	0	96,542
	September	0	0	206,842
	October	0	0	418,344
	November	0	0	418,344
	December	0	0	418,344
2010	January	0	0	418,344
	February	0	0	418,344
	March	0	0	321,802
	April	0	0	429,844
	May	0	0	407,641
	June	0	0	659,720
	July	0	0	906,764
	August	0	0	1,108,713
	September	31,608	0	1,253,581

	October	73,351	0	1,253,581
	November	101,881	0	1,253,581
	December	108,224	0	1,035,239
2011	January	108,224	13,700	593,861
	February	108,224	13,700	346,817
	March	108,224	13,700	144,868
	April	76,616	13,700	260,992
	May	34,873	13,700	423,963
	June	6,343	13,700	680,626
	July	0	13,700	933,776
	August	0	13,700	1,125,256
	September	0	0	1,378,256
	October	0	0	1,378,256
	November	0	0	1,378,256
	December	0	0	1,117,264
2012	January	0	0	697,630
	February	0	0	444,480
	March	0	0	408,817
	April	0	0	298,005
	May	0	0	448,573
	June	0	0	689,751
	July	67,883	0	689,751
	August	109,854	0	689,751
	September	109,854	0	689,751
	October	109,854	0	689,751
	November	109,854	0	533,934
	December	109,854	0	391,746
2013	January	109,854	0	0
	February	41,971	26,700	0
	March	0	196,500	0
	April	0	206,700	0
	May	0	206,700	120,422
	June	0	253,944	348,821
	July	60,920	325,553	503,899
	August	116,387	395,275	732,080
	September	140,458	458,469	927,359
	October	140,458	454,518	1,150,970
	November	140,458	284,718	1,150,970
	December	140,458	274,518	1,150,970
2014	January	444,058	227,274	802,149
	February	764,838	179,093	647,071
	March	1,201,621	146,665	418,890
	April	1,751,475	83,471	223,611
	May	1,919,088	60,722	63,965
	June	2,174,326	109,225	206,336
	July	2,297,388	175,975	370,203
	August	2,349,638	238,661	563,448
	September	2,157,963	304,373	650,018
	October	1,974,950	315,180	870,855
	November	1,648,863	277,886	910,715
	December	1,074,938	277,886	910,715
2015	January	652,087	229,383	731,781
	February	529,025	162,633	598,270
	March	476,775	99,947	446,574
	April	364,850	34,235	475,791
	May	166,163	0	351,857
	June	0	0	415,020
	July	0	0	569,267
	August	0	0	611,997
	September	0	0	662,867
	October	0	0	713,753
	November	0	0	703,886
	December	0	0	588,099

2016	January	0	0	816,455
	February	0	0	786,099
	March	0	0	816,943
	April	0	0	864,818
	May	0	0	832,798
	June	0	0	806,424
	July	0	73,474	789,862
	August	0	116,969	941,818
	September	0	118,080	1,048,167
	October	0	118,080	1,183,837
	November	0	118,080	1,210,926
	December	0	118,080	1,210,926
2017	January	0	118,080	1,170,262
	February	0	118,080	1,170,262
	March	0	118,080	1,139,320
	April	0	118,080	1,077,239
	May	0	144,635	1,152,816
	June	0	224,170	1,212,869
	July	0	246,248	1,144,245
	August	0	275,939	1,046,712
	September	0	330,625	964,314
	October	0	402,877	862,572
	November	0	402,877	803,801
	December	0	402,877	803,801
2018	January	0	402,877	803,801
	February	0	402,877	803,801
	March	0	402,877	762,350
	April	0	402,877	660,769
	May	0	455,379	660,769
	June	0	396,332	603,519
	July	70,869	379,837	608,320
	August	72,597	372,181	627,882
	September	72,597	337,681	636,941
	October	72,597	278,571	619,918
	November	72,597	278,571	619,918
	December	72,597	278,571	619,918
2019	January	72,597	278,571	619,918
	February	72,597	278,571	619,918
	March	72,597	278,571	619,918
	April	72,597	278,571	619,918
	May	72,597	199,514	479,458
	June	72,597	226,161	457,259
	July	1,728	181,937	500,093
	August	0	151,174	472,007
	September	0	150,826	548,720
	October	0	137,684	546,614
	November	0	137,684	546,614
	December	0	137,684	546,614
2020	January	0	137,684	546,614
	February	0	137,684	546,614
	March	0	137,684	546,614
	April	0	137,684	600,343
	May	0	137,684	655,993
	June	0	90,549	669,662
	July	0	55,716	552,966
	August	0	55,716	501,760
	September	0	55,716	313,765
	October	0	55,716	217,724
	November	0	55,716	217,724
	December	0	55,716	217,724
	January	0	55,716	217,724
	February	0	55,716	217,724
	March	0	55,716	217,724

2021	April	0	63,288	163,995
	May	0	122,171	212,801
	June	0	192,176	266,111
	July	0	237,150	366,661
	August	73,540	265,153	436,718
	September	147,736	302,414	555,017
	October	192,134	327,157	609,194
	November	192,134	327,157	609,194
	December	192,134	327,157	609,194
2022	January	192,134	327,157	609,194
	February	192,134	327,157	609,194
	March	192,134	327,157	609,194
	April	192,134	327,157	609,194
	May	192,134	268,274	667,460
	June	192,134	198,269	745,012
	July	192,134	198,269	742,356
	August	211,990	221,479	744,713
	September	266,184	228,656	694,285
	October	224,037	203,913	781,263
	November	224,037	203,913	903,735
	December	224,037	203,913	979,235
2023	January	224,037	203,913	1,036,490
	February	224,037	203,913	1,154,471
	March	224,037	203,913	1,184,672
	April	224,037	196,341	1,245,082
	May	224,037	272,341	1,233,014
	June	224,037	351,507	1,167,341
	July	246,019	306,533	1,161,205
	August	226,951	220,553	1,182,869
	September	98,561	155,166	1,189,314
	October	96,310	155,166	1,183,579
	November	96,310	155,166	1,196,209
	December	96,310	155,166	1,207,825
2024	January	96,310	155,166	1,282,383
	February	96,310	155,166	1,249,715
	March	96,310	155,166	1,315,583
	April	96,310	155,166	1,362,896
	May	96,310	79,166	1,302,002
	June	96,310	12,912	1,266,725
	July	96,310	14,863	1,299,019
	August	46,900	14,863	1,257,428
	September	93,043	14,863	1,357,571
	October	93,043	14,863	1,350,227
	November	93,043	14,863	1,337,043
	December	93,043	14,863	1,327,763

Max 12-month rolling throughputs:

Max Add 10% Safety Factor	Metallic		Non-Metallic
	Non-Fines	Fines	
	2,349,638	458,469	1,668,355
	2,584,602	504,316	1,835,191

Notes:

- (1) Metallic fines = concentrate, filter cake, etc.
- (2) Metallic non-fines = ball mill balls, chips, sinter, pellets, ore, etc.
- (3) Non-metallic = fluxstone, rock, gravel, stemming, refractory, soil, road rock, filter rock, BFT, ballast

Attachment 6 – EPA contractor guidance request and response letters

August 5, 1994 **[Final Copy Sent]**

Mr. John S. Seitz
Director, Office of Air Quality Planning and Standards
United States Environmental Protection Agency
Research Triangle Park, North Carolina 27711

RE: Request for a Policy Decision on Air Quality Permitting Requirements for Contracted Operations on Stationary Sources

Dear Mr. Seitz:

The Minnesota Pollution Control Agency (MPCA) requests that the United States Environmental Protection Agency (U.S. EPA) make a policy decision on air quality permitting requirements for contracted operations performed at major stationary sources pursuant to Title I and Title V of the Clean Air Act. Specifically, the MPCA requests that the U.S. EPA make a policy decision that contracted operations performed at stationary sources must be included as part of the stationary source if the contracted operations support the stationary source activities; and that the owner of the stationary source be deemed the owner/operator of the contracted operations for purposes of permitting and enforcement/regulatory compliance, while the contracted operations are part of the stationary source. Since the existence of such operations on stationary sources is not limited to Minnesota, the MPCA also requests that the U.S. EPA require all states to follow the U.S. EPA's decision.

Background

U.S. Steel Minnesota Ore Operations (USS), a stationary source for taconite ore processing, has a contract with Ulland Brothers, Inc. (Ulland Bros.) for which Ulland Bros. brings portable rock crushing equipment to USS to crush overburden rock. USS uses the product from this operation for road building at the stationary source and for sale as road building aggregates. Ulland Bros. also performs screening of spilled solids in the pelletizing lines to recover taconite pellets, as well as other support operations for USS.

The portable rock crushing equipment for overburden rock crushing is subject to New Source Performance Standards (NSPS); 40 CFR 60, Subp. OOO, "Standards of Performance for Nonmetallic Mineral Processing Plants." Failure to comply with NSPS, 40 CFR 60, Subp. OOO, by Ulland Bros. and USS brought the existence of contracted operations to the MPCA's attention and led the MPCA to take the initial enforcement actions against both companies.

Ulland Bros. has subsequently taken actions to meet the requirements set out by the MPCA. However, USS has not yet agreed with the MPCA's determination that USS is an owner and operator of the rock crushing equipment because USS is the stationary source owner at which Ulland Bros. portable plant operates and USS has substantial control over the portable plant through a contract (see Appendix 1 for detail of the MPCA's determination).

Meanwhile, the MPCA permit staff advised USS to combine all of its contracted operations with its regular operations into its application for a Title V operating permit to take advantage of the process flexibility provisions and to alleviate the unnecessary burden of frequently amending the title V permit. After meeting with USS, the MPCA decided to withdraw part of its enforcement action; the requirements that USS ensure that its contractors comply with any NSPS notification and testing requirements, and that USS submit an application for a permit for the rock crushing operations performed by Ulland Bros. at the stationary source. The MPCA also decided that, prior to a policy decision by the U.S. EPA, USS would not be required to include the contracted operations in its Title V operating permit application, which is due on October 15, 1994.

The reason for the MPCA's decisions is that Minnesota's industry could be adversely affected and the state could lose competitiveness to attract new businesses unless industry in other states are treated in the same way regarding contracted operations. Therefore, the MPCA has informed USS that the MPCA would pursue discussions with the U.S. EPA regarding a national policy on how to handle stationary sources' contracted operations and would ask the U.S. EPA to start an initiative to implement this policy to ensure uniform application of the regulations across the nation, before requiring USS to comply with such a policy.

Positions of the MPCA

At issue is whether to hold the stationary source, which is a major source in this case pursuant to Title I (New Source Review--Prevention of Significant Deterioration) and Title V (Operating Permit Program), responsible for all the air pollutants emitted from the source. The MPCA's position is that the stationary source is responsible for all the air pollutants emitted from the source's operations and activities, which in this case include intermittent operations such as those contracted out to Ulland Bros.

While the issue on hand involves enforcement actions initially due to NSPS (see Appendix 1 for detail of the MPCA's determination), it has much wider implications from the perspectives of Prevention of Significant Deterioration (PSD) and Title V permitting. The MPCA's position in this matter is in accordance with the enclosed August 11, 1989, PSD Memorandum from John Calcagni, Director of Air Quality Management Division (MD-15), to Irwin L. Dickstein, Director of Air and Toxics Division (8AT-AP), concerning PSD applicability determination for multiple owner/operator point source within a single facility. The approach to include all the operations, permanent and temporary, contracted and performed by the stationary source owner, into the Title V operating permit is possible under the flexibility provisions of the permit rule (40

CFR 70), which is currently under review according to a U.S. EPA proposal released on March 21, 1994 ("White Paper").

It would be tantamount to authorization for the regulated community to contract away its environmental responsibilities and thereby being free from regulatory accountability, if the contracted operations are excluded in the Title I and Title V permitting processes for the stationary source.

The MPCA believes that it is necessary for the U.S. EPA to take up this policy issue to ensure uniform application of regulations among the states. We are not aware of any precedent setting policy or practice in any other state that addresses this issue. It is for this reason that the MPCA requests federal actions from the U.S. EPA.

Actions Requested

The MPCA requests that:

- 1) the U.S. EPA makes a policy decision on whether to require stationary sources to include all of their operations, permanent and temporary, performed by themselves or by contractors, in their applications for a Title V operating permit and for a construction permit;
- 2) the U.S. EPA issues policy memoranda for PSD and for Title V permitting to require all states to follow the policy decision it made; and
- 3) a reasonable amount of time is given to permittees to come in compliance with this requirement.

Sincerely,

Lisa J. Thorvig
Division Manager
Air Quality Division

Enclosure

cc: Please see the attached page.

The following people received a copy of the attached letter:

U.S. EPA Region V
U.S. EPA Region VIII
Chuck Williams, Commissioner
Ann Seha, Assistant Attorney General
Adonis Neblett, Assistant Attorney General
Ann Foss, Air Quality Division
Carolina Espejel-Schutt, Air Quality Division
Hongming Jiang, Air Quality Division
Barbara Loida, Air Quality Division
Robert Beresford, Duluth Regional Office
AQD File No. 26A

Appendix 1. MPCA's Determination on the NSPS Subp. OOO Violation Case

40 CFR Part 60 and its regulatory requirements should not be read or applied in a vacuum. 40 CFR Part 60, Subpart A (Supb. A) should be considered for guidance before delving into the nuisances of Subp. OOO. Subpart A provides that its provisions apply to the owner or operator of any stationary source which contains an affected facility (40 CFR 60.1). It further provides the following definition of "owner or operator" (40 CFR 60.2):

any person who owns, leases, operates, controls, or supervises an affected facility or a stationary source of which an affected facility is a part.

Based upon its interpretation of these regulatory provisions and of stationary source, the MPCA determined that the Ulland Bros. rock crushing plant becomes a part of the USS stationary source when it performs the contracted rock crushing operation; and as a logical consequence the affected facilities of the rock crushing plant are a part of that stationary source during the time the portable plant operates at the site.

The Clean Air Act defines stationary source as "any building, structure, facility, or installation which emits or may emit any air pollutant." [42 U.S.C. §7411(a)(3)]. The MPCA similarly defines "source" as "a building, structure, facility, or installation from which there is or may be a discharge of pollutants." [Minn. Rules 7001.1020, Subp. 28]. The rock crushing operations are performed pursuant to contract on USS property, using USS overburden rock, in support of and as part of USS operations. It is the MPCA's position that these factors are sufficient to make the rock crushing operations a part of the USS stationary source.

Additional support for this position can be found in the guidance of the PSD program. Two or more different operations may be considered part of a single stationary source if they are conducted on or located on contiguous or adjacent properties, and are owned or operated by the same person or under the common control of the same person. The Ulland Brothers operations are conducted on USS property. By virtue of the definition of owner/operator (40 CFR 60.2), USS is an owner/operator of both the taconite operations and the rock crushing operations for regulatory purposes. Despite its arguments to the contrary, USS does have control via contract over Ulland Brothers' operations while on USS property. The rock crushing is conducted as part of USS operations that either utilizes or sells the crushed rock; as such, Ulland's operations are deemed to be a support facility to the USS taconite processing.

It should be noted that the MPCA does not contemplate multiple tests and notifications. Compliance with such requirements can be worked out cooperatively between USS and Ulland Bros. or other similarly situated contractor in the future.

November 16, 1994

Ms. Lisa J. Thorvig
Division Manager, Air Quality Division
Minnesota Pollution Control Agency
520 Lafayette Road, North
St. Paul, Minnesota 55155-4194

Dear Ms. Thorvig:

This is in response to your August 5, 1994 letter requesting that the Environmental Protection Agency (EPA) make a policy decision on whether to require stationary sources to include all of their operations in their applications for construction or operating permits, pursuant to title I or title V, respectively, of the Clean Air Act (Act). Specifically, you requested that the EPA issue policy guidance ensuring consistent treatment of temporary and contracted operations at stationary sources.

As you are aware, the definition of major source found in 40 CFR 70.2 requires all stationary sources located on contiguous or adjacent properties under common control and belonging to a single major industrial grouping to be considered as the same source. This approach of grouping sources according to their 2-digit Standard Industrial Classification (SIC) code has been established in the New Source Review (NSR) and Prevention of Significant Deterioration (PSD) programs under title I of the Act and is a result of the Alabama Power decision (see Alabama Power v. Costle, 636 F.2d 323, 360 (D.C. Cir., 1979)). In section 112 of the Act and 40 CFR part 63, however, a major source is defined as 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) above a threshold level of hazardous air pollutants (HAP). Consequently, the SIC codes of the sources are not considered in defining major sources of HAP. It is important to note that there are no provisions in title I or title V of the Act, or in regulations developed pursuant to them, for excluding contracted or temporary operations in defining major sources.

Accordingly, it is the EPA's policy that temporary and contractor-operated units be included as part of the source with which they operate or support. A recent informal survey of the EPA Regional Offices confirmed that States are including these operations in defining major sources. Thus, I wish to affirm that it is appropriate to continue this practice for the purposes of title V and section 112 permitting.

Due to the critical importance of determining which sources are major under the Act, we appreciate your scrutiny regarding treatment of contracted and temporary operations. Moreover, we invite discussion of additional applicability issues that may arise.

We appreciate this opportunity to be of service and trust this information will be helpful to you.

Sincerely,

/s/

John S. Seitz
Director
Office of Air Quality Planning
and Standards

cc: Air Division Director, Regions I-X

Attachment 7 – Points calculator

Points Calculator

1) AI ID No.:	2476	Total Points	242
2) Facility Name:	US Steel Corp - Minntac		
3) Small business? y/n?	N		
4) Air Project Tracking Numbers (including all rolled) :	1631, 1309, 1328, 2042, 2014, 2089, 2056, 2985, 3049, 3131, 3381, 4198, 3916, 3690, 4460, 4701, 5654, 5712, 5935, 6107, 6700, 6984, 7037		
5) Date of each Application Received:	8/22/2007, 11/26/2006, 12/20/2006, 5/2/2008, 4/10/2008, 6/6/2008, 5/13/2008, 1/26/2010, 3/22/2010, 5/21/2010, 2/20/2011, 11/26/2012, 4/30/2012, 8/1/2012, 6/27/2013, 3/7/2014, 9/19/2016, 11/21/2016, 9/20/2017, 4/19/2018, 6/18/2020, 9/29/2021, 12/15/2021		
6) Final Permit No.	13700005-101		
7) Permit Staff	Derek Nelson		

Application Type	Air Project Tracking No.	Tempo Activity ID	Qty.	Points	Total Points	Total Additional Cost	Details
Administrative Amendment	2042, 2985, 3049, 3131, 3381, 4198, 4701	IND20080001, IND20100001, IND20100002, IND20100005, IND20110001, IND20120001, IND20140001	7	1	7	\$ 1,995.00	
Minor Amendment	1309, 1328, 2014, 2089, 3916, 5654, 5712, 5935, 6107, 6984, 7332, 7465, 7531	IND20060001, IND20060002, IND20080002, IND20080003, IND20120002, IND20160001, IND20160002, IND20170001, IND20180001, IND20210001, IND20230002, IND20230005, IND20240002	10	4	40	\$ 11,400.00	
Applicability Request				10	0	\$ -	
Moderate Amendment				15	0	\$ -	
Major Amendment	2056, 3690, 4460, 6700, 7037	IND20080004, IND20120005, IND20130001, IND20200001, IND20210002	5	25	125	\$ 35,625.00	
Individual State Permit (not reissuance)				50	0	\$ -	
Individual Part 70 Permit (not reissuance)				75	0	\$ -	
Additional Points							
Modeling Review				15	0	\$ -	
BACT Review				15	0	\$ -	
LAER Review				15	0	\$ -	
CAA section 110(a)(2)(D)(i)(I) Review (i.e., Transport Rule/CAIR/CSAPR)				10	0	\$ -	
Part 75 CEM analysis				10	0	\$ -	
NSPS Review	3916, 5654, 5712, 5935, 6984, 7332, 7531	IND20120002, IND20160001, IND20160002, IND20170001, IND20210001, IND20230002, IND20240002	2	10	20	\$ 5,700.00	subp. IIII, subp. LL
NESHAP Review	3916, 5654, 5712, 5935, 6984, 7332, 7531	IND20120002, IND20160001, IND20160002, IND20170001, IND20210001, IND20230002, IND20240002	2	10	20	\$ 5,700.00	subp. ZZZZ, subp. RF
Case-by-case MACT Review				20	0	\$ -	
Netting				10	0	\$ -	
Limits to remain below threshold		IND20120002, IND20160001, IND20170001	3	10	30	\$ 8,550.00	Limits to avoid PSD n
Plantwide Applicability Limit (PAL)				20	0	\$ -	
AERA review				15	0	\$ -	
Variance request under 7000.7000				35	0	\$ -	
Confidentiality request under 7000.1300				2	0	\$ -	
EAW review				0	0	\$ -	
Part 4410.4300, subparts 18, item A; and 29				15	0	\$ -	
Part 4410.4300, subparts 8, items A & B; 10, items A to C; 16, items A & D; 17, items A to C & E to G; and 18, items B & C				35	0	\$ -	
Part 4410.4300, subparts 4; 5 items A & B; 13; 15; 16, items B & C; and 17 item D				70	0	\$ -	
				Add'l Points		70	

NOTES:

Limits to remain below threshold: Three minor amendments for crusher replacements took credit for controls that require limits to avoid PSD major modification status.

NSPS review: Subp. IIII review for new emergency generators, subp. LL (new to permit) for replacement tertiary crushers

NESHAP review: Subp. ZZZZ review for new emergency generators, subp. RRRRR review for replacement tertiary crushers. The RRRRR requirements are new to the permit because the replacement crushers are new affected sources under the standard, while the permit previously only included requirements for existing affected sources.